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BUSINESSKOREA

AUGUST 2013 / VOL. 31 No. 343 www.businesskorea.co.kr


# ANOTHER FINANCIAL CRISIS?

## MIXED VIEWS ABOUT IMPACT ON KOREAN FINANCIAL MARKET

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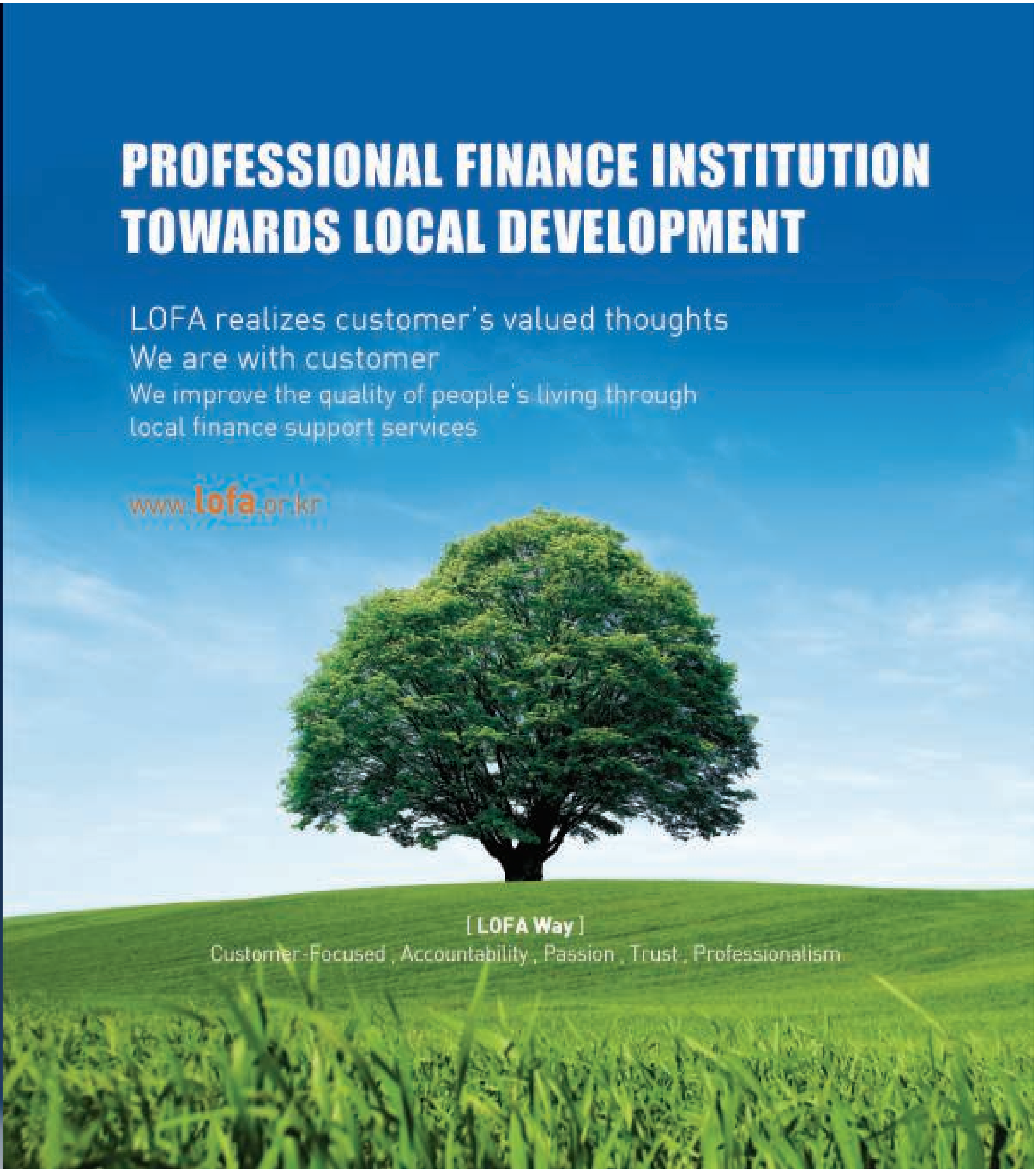


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# To Our Readers

## Pyongyang Must Give Answer to Key Issues

The two Koreas are moving fast to improve bilateral relations. The reunion of separated families is planned to be resumed for the first time in three years.

Both Koreas had a meeting on August 23 at Panmunjom to discuss the reunion and agreed with each other to hold the event at Mt. Kumgang during the Chuseok holidays. Moreover, talks are in progress to restart Mt. Kumgang tourism, along with the normalization of the Kaesong Industrial Complex.

UN Secretary General Ban Ki-moon, who visited the South recently, also said that he was considering visiting North Korea if discussions with Seoul and Pyongyang were completed. He added that the UN is willing to lend a helping hand to President Park Geun-hye's plan for the World Peace Park in the DMZ, on the condition that both Koreas reach an amicable agreement. He revealed his intentions to the President during his meeting with her.

It is said that North Korea's attempt to resume the Mt. Kumgang tourism and manufacturing activities in the industrial complex has to do with earning foreign currency, but is also a symbolic gesture in international relations. These days, China, which is concerned over any instability on the Korean peninsula, is urging the North to normalize inter-Korean relations. And, of course, the normalization is an essential step for Pyongyang to improve its relations with the US.

On August 19 (local time), Chinese Defense Minister Chang Wanquan met with US Defense Secretary Chuck Hagel and National Security Adviser Susan Rice in Washington D.C., and called upon them to step forward to talk with the North. "Pyongyang said that it was willing to join three-way or four-way talks under the assumption that no strings be attached by the US," Chang mentioned in the meeting. Washington, however, reconfirmed its stance that the North's efforts towards denuclearization must precede any dialogue. With regard to this point, US Special Representative for North Korea Glyn Davies and Daniel Russel, senior director for Asian affairs at the White House National Security Council, will visit South Korea, China, and Japan in early September to discuss the proposal from Pyongyang.

As stated above, inter-Korean relations are showing better signs, and preparations for another six-party meeting is well underway. Nevertheless, the picture is not entirely rosy. In any event, the key is denuclearization by the North, and how truthful it is regarding the agenda. It is now Kim Jong-un's turn to answer the peace-building efforts of the other countries.

Park Jung-hwan,
Publisher & Editor-in-Chief

LOAN DEPENDENCY

# 500 Domestic Enterprises at "Dangerous" Level


It has been reported that the top 500 domestic enterprises are at dangerous loan dependency levels. About half of the companies investigated are financially unstable with over 30% dependency, a figure considered borderline. Approximately 17 of the top 30 companies also showed a loan dependency rate of 30%.

On August 21, business management result evaluation site CEO Score (CEO Park Joo-geun) reported 297 companies which submitted Q1 business reports and that have comparable data from the previous year, showed a total of 578 trillion won in loans and 1,959 trillion won in assets, which means the loan dependency rate is 29.51%. This is very close to the borderline of "below 30%" and 0.4% worse than the 29.11% in Q1 last year.

The loan dependency level is a financial index which shows the percentage that loans take up in regards to entire assets (debt and capital combined). This index is used to evaluate the soundness and profitability of the financial structure of a business. The lower the index, the better the profitability and asset structure. Below 30% is considered safe. The amount of loans consist of short and long-term debts, other debt, private loans, and other loans that require regular interest payments.

This trend of an increased level of loan dependency shown by the top 500 companies can be interpreted as a result of worsening cash flow through reduced profits due to the economic recession.

Of the 297 businesses which have been investigated, 137 (46%) showed a loan dependency higher than 30%. Companies whose dependency rose in the past year have also increased to 160, which is more than half of all those surveyed.

By industry, freight businesses showed the highest loan dependency with 48.9% due to the global economic recession, a 1% increase from last year. Nine other industries showing financial hardships with over 30% dependency are public

enterprises (38.7%), shipbuilding, machinery & equipment (35.3%), trading (35.1%), steel (34.9%), energy (32.5%), communications (32.0%) and petro-chemistry (30.1%).

On the other hand, roughly eight industries have successfully maintained stable financial flows, with pharmaceuticals standing at (9.6%), IT & electronics (14.7%), services (19.7%), food (24.8%), construction & distribution (25.3%), automobile & parts (27.7%), and daily supplies (28.6%).

In terms of just the top 30 companies out of the 500, 28 companies excluding GM Korea and Booyoung showed a dependency of 27.84%, which is 0.07% higher than last year's 27.77%.

Of these 28, 18 showed an increased level of dependency compared to last year, while 9 showed a decrease. 17 of them (60%) showed a dependency higher than 30%.

Of the top 30 companies, the one with the highest level of dependency turned out to be Hyundai Group (CEO Hyun Jung-eun) with 64.5%. This means that 65% of the company's entire assets are actually loans with immediate interest to be paid. Others are Hyosung (57.4%), Dong Kuk Steel Mill (51.8%), and Hanjin (51.2%).

There are four groups with a dependency of over 40%; KumhoAsiana (48.1%), Dongbu (46.3%), LS (44.1%), and Doosan (44.1%).

There are two groups at a rather low level of 10%, which are Samsung (CEO Lee Gun-hee, 10.3%) and Youngpoong (CEO Chang Hyung-jin, 11.8%). Groups with a dependency below 10% are S-Oil (9%) and Hyundai Department Store (9.9%).

By industry, the top three spots were taken by marine companies. SK Marine Transport had the highest level of dependency at 86%, followed by Hanjin Marine Transport at 77.8%, Hyundai Merchant Marine (70.8%), Daesung Industry (70.4%), KT Rental (69.6%), Taihan Electric Wire (68.2%), Moorim Paper (61.6%), POSCO Plantec (61.5%), Korea Gas Corporation (61.4%) and Samsun Logics (60.0%).

On the other hand, approximately 14 companies, such as Hyundai Home Shopping, GS Home Shopping, S1, Namyang Dairy, NC Soft, Sinsegye Foods, Kangwon Land, Korea Plant Service & Engineering Company, Yuhan Corporation, I Market Korea, Sindorico, Dae Duck Electronics Company, Duckyang Industry, Korea Nitto Optical have been operating without any loans. BK

### Danger of Dishonor

# 150 Listed Korean Companies May Go Bankrupt within One Year

It has been warned that around 400 companies out of those listed on the Korean stock market are in danger of insolvency, with the possibility of 150 of them going bankrupt within one year.

Global consulting firm AlixPartners announced on August 13 that it analyzed 1,500 listed Korean companies using its Corporate Distress Index and found that 27% of them are on alert and 10% of them at high risk. This means that these firms are likely to face bankruptcy, corporate workout, court receivership or the like before the end of the third quarter. By industry, the percentage was as high as 75% in shipbuilding and shipping, followed by finance (35%), culture and leisure (17%), business service (15%) and construction and real estate (10%).

"The figure was 33% in the shipbuilding and shipping industries in late 2011, but it soared to 75% late last year," said Jung Young-hwan, head of the Korean office of AlixPartners, adding, "We also need to take notice of the fact that 35% of financial companies in Korea are on the verge of becoming insolvent enterprises." He continued, "In particular, most securities firms seem to be having a hard time due to the recent decrease in trading value and fees, which is evidenced by their current internal restructuring."

According to AlixPartners, marginal firms such as Woongjin Holdings, STX Pan Ocean and STX Shipbuilding had been in the investment grade even immediately before the court receivership and workout. "This is why an early warning model such as our Corporate Distress Index is necessary," he explained, adding, "Corporate distress can be properly dealt with if tackled in the early stage, yet the survival rate plummets following the elapse of some time."

The Corporate Distress Index of AlixPartners was developed in the early 2000s for the purpose of corporate risk analysis. The consulting firm has looked into companies and industries around the world using the index, but this was the first time that it had been applied to Korean firms.

FINANCIAL CRISIS IN EMERGING ECONOMIES

# Looming Large As Fed Poised to Rein in Quantitative Easing

During the three years following the Fed's earlier-than-expected interest rate hike in 1994, the bond rate rose in advanced countries and money drained out of emerging economies, leading to a financial crisis in some.

Similar things seem to be happening these days across the world. Confusion is building up surrounding the July FOMC minutes released on August 21 (local time). Foreign news outlets have taken the initiation of the Fed's exit strategy before the end of this year as an established fact, yet opinions are split on whether it will be September or December. Experts are predicting that the US Treasury bond rate will continue to rise due to such controversies and that Asian economies will experience greater trouble.

After the release of the minutes, the 10-year Treasury yield reached its highest level, 2.89%, since July 2011. "The FRB is postponing its decision to affect emerging markets, the mortgage rate, and retirement pension, etc," The New York Times reported.

Recently, investment funds have been returning from emerging economies to the US Treasury bond as the interest rate climbs. Countries whose dependence on foreign funds is particularly heavy, e.g. India and Turkey, are taking a direct hit. Under such circumstances, concerns are rising over the possibility that developing nations could repeat the 1997 Asian financial crisis. The currency depreciation rate has already reached 18% and 12% for the Brazilian real and Indian rupee, respectively. Meanwhile, growth forecasts are for Southeast Asian nations such as Indonesia and Thailand are also bleak.

### Will the 1997 Asian Financial Crisis Repeat Itself?

Former Fed chairman Alan Greenspan hiked the 3% rate in February 1994 in an attempt to tamp down inflation from the get go before economic recovery. The key rate reached 6% in June 1995.

Forex market participants in emerging economies panicked as overseas investment funds from advanced countries began to be withdrawn. Eventually, Mexico received a bailout in 1994 and financial crises broke out across Asia three years later, with Korea also receiving a bailout package from the IMF.

The recent financial debacle in emerging nations shares the same thread in essence, although there might be some slight difference in the way the Fed withdraws excess liquidity. The massive funds invested since the 2000s in emerging countries are poised to flow out with the Fed signaling a reduction of quantitative easing. Since 2008, foreign liabilities have increased by 13.8% on annual average in Brazil and 13.1% in India. The total amounts to US$390 billion for India as of the end of March this year, which is far larger than its foreign exchange reserve of US$278 billion.

It is the capital outflow that has tumbled the Indian economy, something which

**Change in Emerging Economies' Stock Indices and Currency Values since June** (unit: %)

| Country | Stock Index | Currency Value |
|---|---|---|
| Korea | -6.7 | 1.1 |
| Taiwan | -5.1 | 0.0 |
| China | -9.9 | 0.2 |
| India | -12.7 | -11.8 |
| Indonesia | -16.8 | -8.3 |
| Malaysia | -1.4 | -6.1 |
| Thailand | -13.2 | -4.9 |
| Philippines | -7.1 | -3.9 |
| Brazil | -5.8 | -12.8 |
| Chile | -13.6 | -3.2 |
| Turkey | -18.9 | -5.2 |
| Russia | -1.4 | -3.7 |

*Based on the closing prices of August 21
Source: Hyundai Securities

had enjoyed an average 8% annual growth. Monthly foreign investment in India has been more than halved from US$5 billion to US$2.3 billion between September last year and May this year. "Foreign funds were attracted by the huge market of 1.2 billion consumers, but it seems that their patience has reached the limit," the International Herald Tribune pointed out.

### Economic Slowdown in China Adding Fuel to the Fire

China's economic growth rate, which dipped below 7% annually, is another risk factor in that most emerging economies, including Brazil and Indonesia, export raw materials to China. Brazil, which ships 17% of its total exports to China, is suffering from a declining growth rate as China's demand for iron ore and grain falls. Its economic growth rate has fallen from over 7% before 2010 to 2.7% in 2011 and 0.9% in 2012, and it is estimated at below 3% this year. The rate for Indonesia, which earns 60% of its GDP through the export of raw materials such as coal, palm oil and rubber, hit the lowest of 5.81% since March 2010 in the second quarter of this year.

The possibility of another crisis is increasing quickly, along with the current account deficits and external liabilities of such emerging economies. This has resulted in currency depreciation, further fueling disinvestment by foreign investors.

### India, the Most Vulnerable

For now, India is regarded as the most vulnerable country because the majority of the others are maintaining fiscal surpluses, while India's budget deficit-to-GDP ratio amounts to 5.6%. "Brazil and Indonesia are natural resource exporters, whereas India is a huge importer of energy resources, which means the latter is particularly susceptible to external risks," The Financial Times said.

The Indian government recently announced that it would put a brake on overseas remittance in an attempt to block the currency value from dropping, but the depreciation is accelerating nonetheless due to the investor exodus. According to UBS, the exchange rate is likely to fall to 70 rupees per US dollar.

In the meantime, Brazil is considered to be out of the danger zone with its foreign exchange reserves standing at US$374.4 billion. However, the real economy remains stagnant despite an injection of approximately 300 billion real. Meanwhile, current account deficits are soaring in Indonesia. The red ink surged close to 70% to US9.8 billion between the first and second quarters of this year, while Thailand recorded consecutive negative growth during the two quarters and entering a depression for the first time in five years.

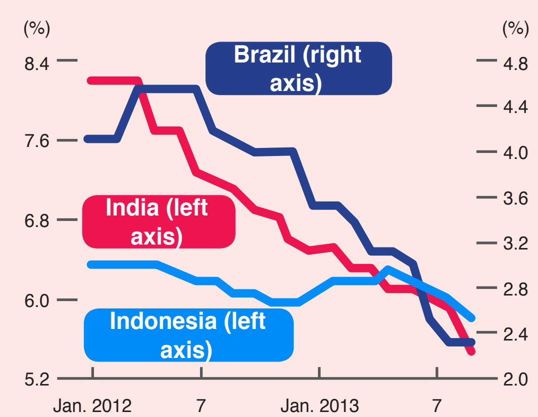
### What is the Impact on Korea?

Foreign exchange market participants in Seoul are concerned over the emergence of another financial crisis. They are closely watching the possible impact of the high currency volatility on the local forex market, with some dealers comparing the current situation to the 1997 Asian financial crisis.

"This year, emerging country currencies are being depreciated at a very rapid pace in Brazil, India and the like," said one, adding, "It seems that the reduction of quantitative easing by the Fed is sending shockwaves through the entire financial markets of emerging economies." He went on, "We can't rule out the possibility that Korea could take a hit from the situation, although it has refined its fundamentals since the recent turmoil."

Another dealer echoed this saying, "Things are quite similar to 1997 and 1998 in that the value of the currencies drops and the financial authorities of emerging nations are resorting to their forex reserves as a countermeasure," adding, "Furthermore, both periods are similar in that a policy change on the part of the US is making developing countries restless." BK

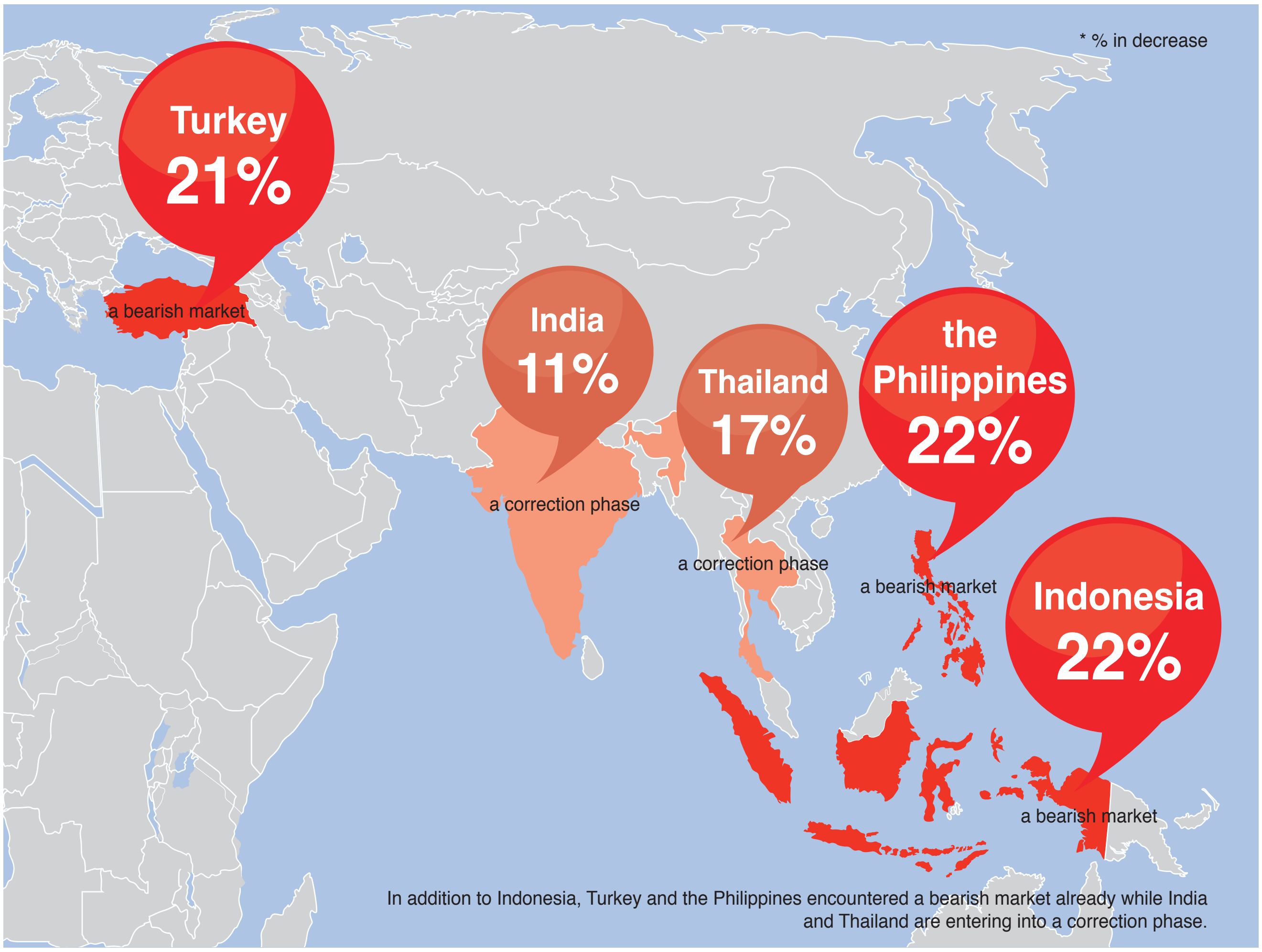
**Emerging Countries' Economic Growth Forecasts**




Source: Bloomberg and Samsung Securities

MIXED OUTLOOK

# Views Are Mixed on the Outlook of Local Financial Market




Economists' opinions are split on what will become of the recent instability in the Southeast Asian financial markets. Some of them are saying that the Korean market will be able to distinguish itself because it has stronger fundamentals than Southeast Asian nations in general while the others are warning that foreign funds could flow out if the United States discontinues its expansionary monetary policy and the exports to the ASEAN region decrease.

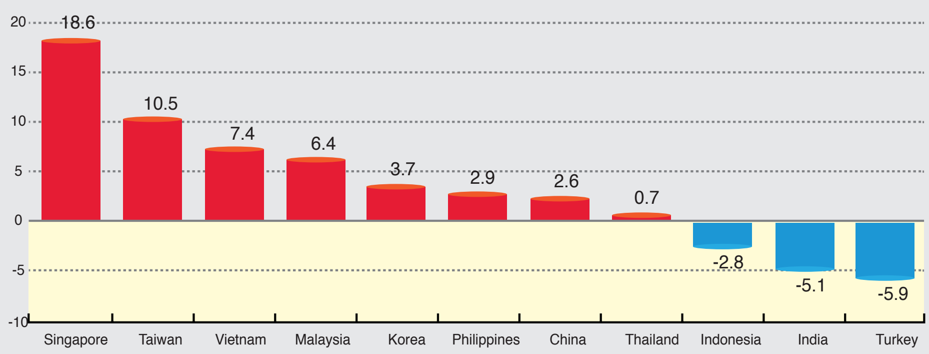
**Short-term Risks are Unavoidable in Korean Stock Market**

On August 21, the KOSPI fell 1.08%, or 20.39 points, from the previous session to 1,867.46 to dip below the 1,860 point mark for the first time since July 16.

Foreign investors, who had recorded a net buying position on the preceding day in spite of the plunge of the index, changed their stance to record a net selling of 145.4 billion won. The size of non-arbitrage program trading amounted to 262.5 billion won as well, close to triple that of the previous session.

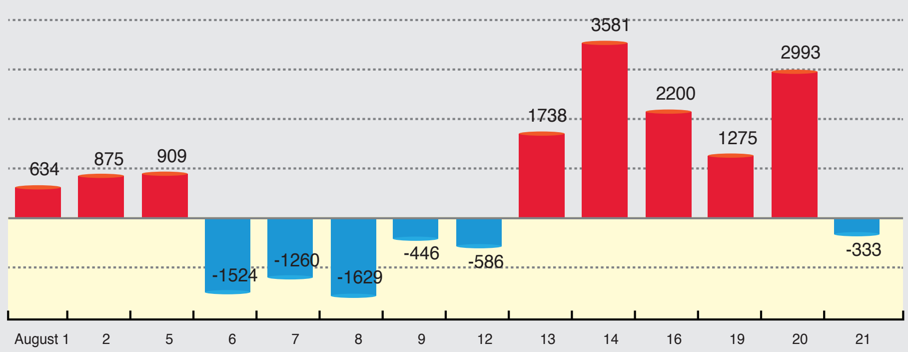
Under the circumstances, an increasing number of market experts are adopting a conservative position, concerned about the Fed's exit strategy from quantitative easing and the fluctuation in the Indian and Indonesian money markets.

**Current Account-to-GDP Ratio of Asian Countries for 2012** (unit: %)




Source: IMF and KB Investment & Securities

**Amount of Net-buying by Foreign Investors** (unit: 100 million won)




*KOSPI market data

Source: Korea Exchange

"We need to focus on the Korean economy's high dependence on exports to the regions and global liquidity conditions although the financial crisis in Southeast Asia is unlikely to spread to Korea right away," said Park Sang-hyun, senior economist at Hi Investment & Securities. The two countries are not expected to overcome the instability immediately as their current account deficits and short-term deficits are on the rise. Besides, they are likely to take a further hit once the supply of liquidity starts to be reduced in earnest to accelerate capital outflow and monetary risks emerge again in China in or around September.

In addition, they are interpreting foreign investors' current trading trend as the sign of a selling spree based on past data. Foreigners have bought spots in a couple of trading sessions recently but shown a net-selling position during the same period in the non-arbitrage program trading. "The same trend has been found three times since 2012," said Tong Yang Securities analyst Lee Joong-ho, continuing, "It resulted in a selling spree by foreigners and a drop in the index without exception."

### Strong Fundamentals Likely to Provide a Chance to Be Distinguished

On the other hand, it is also said that the impact would not be that huge because the Korean economy has strengthened its fundamentals since the Asian financial crisis in the late 1990s. As a matter of fact, emerging economies' stock markets are moving in different directions nowadays between those with favorable economic indices and the rest.

The index has plummeted 83.2% and 52.8% in India and Indonesia since the Fed mentioned the exit strategy for the first time, respectively. Both countries have in common a high ratio of current account deficits to the GDP. Last year, the percentage was 5.1% below zero and 2.8% below zero each for India and Indonesia. Meanwhile, Korea's stock price index has gained 64.8% during the period, the highest in Asia, thanks to its continuous current account surpluses, low ratio of short-term debts and sound foreign exchange management.

Korea's exports to emerging nations, including Southeast Asian ones, have continued to go up and thus the countries' financial turmoil as of late could act as a roadblock to a further increase for the time being. Nevertheless, not a few economists are anticipating that the crisis could make a chance for the Korean stock market to increase its attraction. Their prediction is buttressed by the stable movement of the won with the other emerging countries' currencies fluctuating due to the waning of the Abenomics and concerns over the exit strategy.

"Korea is categorized into emerging economies but its economic fundamentals are more like those of advanced countries," Hyundai Securities economist Lee Sang-jae explained. He emphasized, "The current risks in Southeast Asia will make the Korean stock market look more attractive in the end with the country enjoying an economic rebound, a massive current account surplus and a low inflation rate."

IMPACT ON KOREAN FINANCIAL MARKET

# "Korea Is Not a Safe Zone"

The government and financial sector are watching closely as financial insecurities in emerging markets such as India and Indonesia that were triggered by concerns of a decrease in US quantitative easing may affect Korean capital markets. Although the government is responding differently than most emerging economies as there is a low chance that this will spread to become the second foreign exchange crisis, it has begun cautionary actions such as increasing market monitoring.

Hyun Oh-seok, Deputy Prime Minister for the Economy, who concurrently serves as the Minister of Strategy and Finance, met with the press following a Ministerial meeting on August 21.

In response to whether signs of financial crisis in Asian emerging economies would spread to Korea, he said, "We'll have to keep our eye on how things turn out, but Korea does seem to be differentiated." The Deputy Prime Minister for the Economy said, "Korea has an inflow of capital into the stock market and exchange rate volatility isn't high. Foreign exchange and financial markets may experience shocks. We'll watch with caution the timing of quantitative easing and the flow of international financial markets."

The Ministry of Strategy and Finance also evaluated in a report titled, 'Recent Trends in Asia's Financial and Foreign Exchange Markets and Its Effect on the Korean Economy', that, "Korea is relatively stable compared to other emerging economies in Asia in terms of exchange rate, stock prices, CDS premium, and foreign capital inflow."

In regards to this financial crisis for emerging economies, the stock market predicts that 'hot money' seeking short-term profits following US quantitative easing were focused on Indonesia and other Southeast Asian countries that are at the forefront of the financial crisis. "Indonesia has had the most inflow of hot money from quantitative easing. Its stock market has jumped 17 times since 2003," said Lee Eun-taek, a researcher at Dongbu Securities. "Korea has had much less hot money, therefore it's difficult to see it in the same light," he explained.

Some forecast that capital leaving emerging markets could be pulled into the Korean stock market. Cyclical components of leading economic indicators have been on the rise for three consecutive months, showing that Korean economic momentum remains firm compared to emerging economies. The Korean economy has a higher dependency on foreign economies compared to emerging economies, so the upswing in US and European economies can lift Korea.

In fact, while foreign investors are net selling in Indonesia, Thailand, and Taiwan, they are buying over US$5 million in Korea. "As Korea's differentiated economic momentum is highlighted, the value of the won is stabilizing and stock markets are seeing an inflow of foreign capital," said Park Jung-sub, a researcher at Daishin Securities. Capital that left other emerging economies in Asia could flow into Korean stock markets," he analyzed.

Liquidity of foreign currency is also showing different movements from other emerging economies. According to the Korea Center for International Finance, Korea's CDS premium on August 20th was 88bps, similar to the previous day. CDS premium, which was around 91bp at the end of June, fell by 3bp to 88bp by the end of July. In contrast, the CDS premium in Indonesia rocketed by 49bp within 20 days, from 214bp on August 1 to 263bp on August 20. In the same period, the CDS premium also increased in Thailand and Turkey, rising 34bp and 24bp, respectively.

"CRS rate, which evaluates the lack of foreign currency liquidity, increased from 1.58% at the end of June to 1.74% at the end of July, which is a good sign," said Kim Kwon-sik, a researcher at the Korea Center for International Finance.

However, some problems remain. These include; government debt, including

public enterprises, stands at 1,000 trillion won, similar to that of Spain, which recently received a bailout; among the 925.3 billion won of foreign investment as of 2013, 83.6% are stocks, bonds, and debt that can be withdrawn anytime; short-term foreign debt stands at US$125 billion; households debt at 1,150 trillion won; and corporate debt is 130% against the GDP. Therefore, it's difficult to say that Korea is already in the safe zone.

In contrast, the foreign exchange reserve is only US$328 billion. If 20~30% of foreign investment and short-term foreign debt exits, that's already US$237~293 billion, a figure which could shake the economy heavily. "Foreign investors' net buying and the movement of the KOSPI means that the Korean stock market can also be indirectly affected," the researcher Kim explained. BK


On August 21, the KOSPI ended at 1867.46, a decline of 20.39 points (-1.08%). Pictured are traders at the Korea Exchange Bank headquarters in Seoul.

**Net Inflow of Funds**

## Korean Bond-type Funds Enjoying Net Inflow of 154 Billion Won

It has been found that the money drain from bond-type funds is slowing down in spite of the possibility of a foreign exchange crisis in India and the Fed's remarks regarding the end of quantitative easing.

According to the Korea Financial Investment Association (KOFIA), the 30-year government bond yield topped 4% on August 23 as the bond market has been losing steam due to the announcement regarding the reduction of quantitative easing. In addition, investors are taking their funds out of emerging nations, raising concerns over the sell-off of won-denominated bonds in Korea.

However, experts are claiming that the sentiment of foreign and domestic bond investors is improving. According to KOFIA data, no less than 1,864.4 billion won and 755.6 billion won were withdrawn from domestic bond-type funds (excluding exchange traded funds) in June and July, respectively, yet approximately 154 billion has flown into them in August. The resale amount is plummeting for the overseas bond funds, too.

Nevertheless, financial market participants are becoming increasingly nervous over the possibility of a financial crisis looming large in India. Those in not only India but also other BRICs nations and emerging economies in Asia are already panicking over the acceleration of capital outflow. Fortunately for Korea, however, the impact is likely to be rather limited on the Korean bond market for now. The bond balance fell from 103.2 trillion won to 100.9 trillion won between July 22 and this month, yet things look worse for India and Indonesia.

Bond market experts are attributing the differentiation to the strong fundamentals of the Korean economy. "It is no stretch to say that Korea has been free from financial shocks as of late," said Shinyoung Securities analyst Hong Jeong-hye, adding, "During the recent financial crisis, foreign funds flew out, causing the currency swap rate to drop and a widening spread to be formed, but things are the other way around these days, that is, Korea is succeeding in maintaining stability thanks to its solid financial and economic structures."

Some people are pointing out though that it is too early to be content. They point out that the crisis in India could spread to other countries, causing won-denominated bonds in those regions to be put on the market all at once. Malaysia and Thailand are in possession of won-denominated bonds totaling 7.395 trillion and 7.386 trillion won, respectively. Furthermore, the amount is estimated to be around three trillion won for each of India, Indonesia and Turkey.

"The local bond market is showing few signs of instability despite the possibility of an Indian financial crisis and the capital outflow from bond-type funds seems to have finished for now," said an asset manager, adding, "Nonetheless, it is also true that the foreign exchange crisis in India will take time to be resolved and so we need to keep a close watch on the Southeast Asian and BRICs financial markets for the time being."

CHANGES IN KOREAN FINANCE

# Korea Ranked Top in Foreign Capital Flow-in among Emerging Economies

Ever since September, when the US reduced the release of money, foreign capital concentrated in emerging markets has been withdrawing. Financial crisis are expected in emerging markets such as India, Indonesia, Brazil, Turkey, and South Africa as currency values drop, stock prices retreat, and interest rates increase. However, the Korean market remains stable, unlike in the past.

The Korean economy is different from other emerging market nations. After June, when rumors about a US reduction of released money first appeared, the stock prices, interest rates, and exchange rates of 12 major emerging nations were compared to Korea. The Korean won increased the most, even surpassing the Chinese yuan. Interest rates (for bonds maturing in 10 years) rose 0.54%, making Korea one of the most stable nations with active stock markets, along with Taiwan. Although stock prices dropped slightly, it was still better compared to some other nations.

Furthermore, when comparing data provided by eight emerging nations (Korea, Taiwan, India, Indonesia, Thailand, Vietnam, The Philippines, Brazil), Korea saw the highest capital flow of US$1.6 billion.

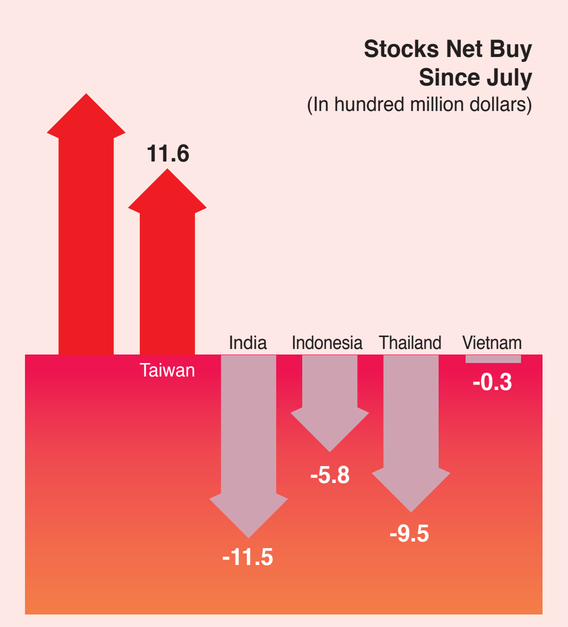
### "Korea Differentiates Itself from Other Nations"

Korea used to be criticized harshly whenever there was an economic crisis, but it is being treated differently this time because the basic economic grounds of Korea have changed. Factors such as the foreign exchange reserve, amount of short-term debts, and current account deficits, which were previously highlighted as weak links, have been significantly enforced.

When compared to the 2008 global economic crisis, Korea has increased 40% of its foreign exchange reserve, rising from US$239.6 billion to the current US$329.7 billion. Furthermore, the amount of short-term foreign bonds, once called the soft underbelly of the Korean economy, has decreased from 52% to 29%. The ratio of current accounts to gross domestic production has increased 2.7% from the average 0.3% (in 2008), marking 17 consecutive months of current ratio surplus. Bank soundness, which was also seen as one of the weak spots, has also improved to receive good scores. The Financial Supervisory Service said, "When international liquidity was tested in the same conditions as the 2008 economic crisis, all banks in Korea passed the test by last June."

Michael Reed, the Korean representative of the global asset management company Fidelity, said in a recent interview with a domestic daily newspaper, "Korea has improved its basis in terms of short-term bonds and foreign reserves. It also has taken some steps to reduce the amount of change in capital outflow, improving the foreign exchange soundness. It is less likely that the economic crisis happening in other emerging nations will affect Korea." He added, "People are nervous that another Asian economic crisis will occur with the recent breakdowns in the financial stability of India and Indonesia, but now that Korea has improved its basics, it shouldn't worry by putting itself on the same line as the other nations."

JP Morgan's chief market strategist in Asia, Tai Hui said, "Since Korea is showing a continuous surplus in its current accounts, foreign investors are looking at it differently when compared to other emerging nations."




*From beginning of July to August 21,
Stocks net buy is calculated by subtracting sales from purchases
Data: Hyundai Securities

On August 22, Fitch Group, one of the big three international ratings agencies, announced it will maintain Korea's credit as AA-. Fitch said this was because, "The Korean economy has good fundamentals."

Some even expect Korea to be the biggest beneficiary of this "third economic crisis." A JP Morgan associate said, "Korea may have lost its growth in the past five years since the global economic crisis, but it gained stability instead," adding, "It is now possible to think of Korea as a "refugee" if South East Asia falls." The head of financial industry division of Samsung Economic Research Institute, Kwon Soon-woo said, "It will be a great opportunity for Korea if money from foreign

investors can continue to flow into stock and real estate markets, while activating industrial investments and other productive sectors."

### "Korea No Longer an Easy to Get Market like in the Past"

At the beginning of the year, ten top-level figures from leading investment banks and global private equity funds met in a Japanese ryokan (a traditional accommodation with gardens) near Tokyo, Japan. The event was a private meeting designed to share information on the "Asian market." The Asia-Pacific business finance representative of Moody's ratings agency said, "Korea did come under some criticism for its "doctor after death" kind of reconstruction of pouring public funds into the deal, but most agreed that Korea grew tremendously and that it is now a stable and systematic market."

Another financial figure who recently attended a meeting of global fund associates said, "A specific domestic conglomerate was mentioned (by the foreign fund associates) to have taken on a "holding company" system, and that the entire group is no longer threatened by the difficulties of one company. This is a huge change. Korea is no longer an easy to get market like it has been in the past."

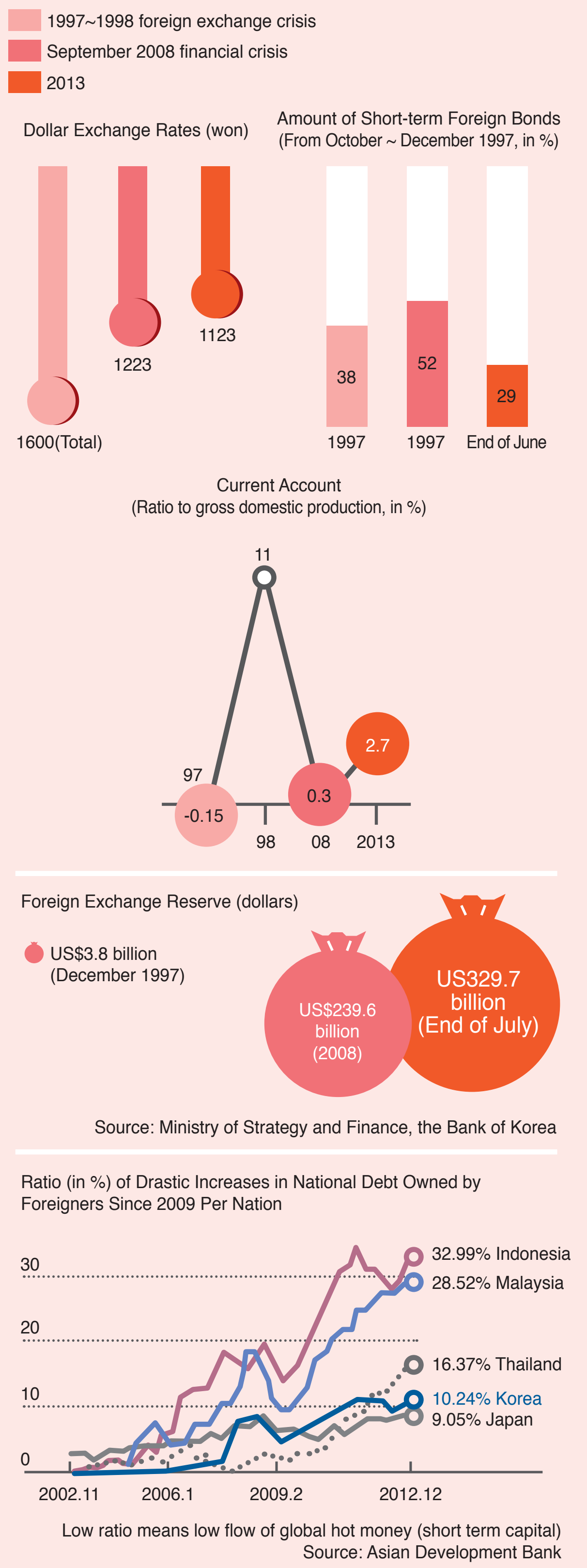
Such positive changes in the Korean economy can also be confirmed by statistics. Following the quantitative easing by the US, a lot of money went straight to national and public bonds in emerging nations. However, according to data from the Asian Development Bank, foreigners occupy only a 10% stake in the national and public bonds issued by Korea. This is one third compared to India or Indonesia, and similar to Japan (9%). A Moody's associate said, "The Korean economy is not one of the emerging markets where global hot money (short-term capital) lingers around. This means the national economy has grown strong."

### Korea Toughens after Two Economic Crisis

Such changes in the view of the Korean national economy and finance have contributed to Korea successfully overcoming economic crisis in 1998 and 2008. Korea is now evaluated to "have know-how on how to overcome a crisis." Former Organization for Economic Cooperation and Development ambassador Heo Kyung-wook said, "Many nations think highly of Korea's ability to restore its economy." In May, the Korea Asset Management Corporation (KAMCO) and the Asian Development Bank hosted a seminar on how to dispose non-performing loans for Vietnam and other South East Asian emerging nations and saw a good turnout. In addition, the Korea Deposit Insurance Corporation and export-import banks are receiving requests to host seminars on corporate support and how to restructure insolvent enterprises. KAMCO CEO Chang Young-chul said, "The Korean economy is the only model internationally to have succeeded despite the risks of bankruptcy."

However, some foreign investors point out that the Korean economy still has some weak points. Reed said, "Since investment sentiment is very important in regards to investment itself, Korea can still experience trouble if people disregard the fact that Korea has a good economic fundamental, and consider it the same as other nations." Hui said, "Korea's weakest point is that it has too high household debt to have any chances for boosting domestic demands." BK

**How has the Korean economy changed after two crisis?**



IMPACT ON KOREAN INDUSTRIES

# In Crisis Due to Declining Emerging Economies

Automobiles bound for overseas markets are lined-up at the pierof the Pyeongtaek port.

Economic deterioration of emerging markets is causing alarm among Korean enterprises. With the financial markets in emerging economies in chaos, there is growing concern for those companies that have already made investments or have been exporting to those markets, since they can be hit by rapid decrease in local spending.

Domestic exporters have invested heavily in the region in an attempt to lower their dependency on the US and Chinese markets. Their direct investment in India, Indonesia and Brazil for eight and half years from 2005 to June 2013 amounts to 12.8 trillion won (US$11.4631 billion).

**Korea's Auto and Steel Industries Keeping an Eye**

In particular, the Hyundai Motor Company is in trouble since India and Brazil are two major markets in the volatile region. It has a plant in India with 600,000 units of annual production capacity, which makes it the second largest among overseas manufacturing bases. Last year, it completed a factory in Brazil that can produce 150,000 units a year in order to enter the South American market.

In India, Hyundai Motors sold 220,000 units in January-July 2013, 5 percent year-on-year drop. That is still an increase in sales, given that the country's total auto sales in the same period fell 10% to 1,450,000 units compared with last year. But there is possibility of production cuts in the event that demand is further easing.

This year, the company has seen an increase in sales: Russia with a year-on-year increase of 2.1%, Brazil with 128.3%, and China with 30.4%. And yet, Hyundai is nervous about whether an economic crisis will be expanded to other emerging markets.

Hyundai Motors is less worried about its plant in Brazil, but feeling a sense of crisis. Hyundai's model named HB20, which is specifically designed for the Brazilian market and introduced at the end of 2012 after opening a new plant in the country, has been so popular that more than 70,000 units were sold until June2013. Nevertheless, the company is still concerned that its auto sales might lose momentum.

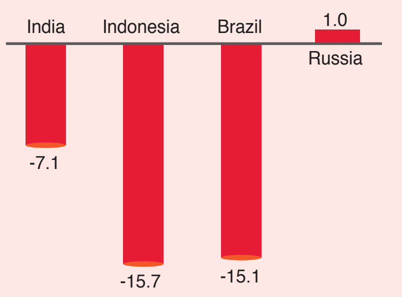
Meanwhile, it is difficult for domestic steel makers to export their products to far-away countries, such as Brazil and India. Therefore, steel exporters are experiencing poor sales performance in those nations. The industry is keeping a close watch on the situation in emerging economies because economic slowdown can affect their plan to build production facilities in Brazil and India.

Since 2005, POSCO, the world's fifth-biggest steelmaker, has been proceeding with a steel mill project in Odisha, India with US$12 billion in investments. But the company has yet to set the start date of the project. In addition, the Korean steelmaker announced in July that it decided to pull out of its second steel mill development in Karnataka. Even though local residents' opposition was the main reason behind POSCO's decision, the choice can be interpreted in a way that faltering economy in India is a hindrance to its steel mill project. In other words, the company isin disadvantageous situation because a strong dollar will lead to the increase in raw material prices in the event of a financial crisis in emerging markets. Recently, the company's direct investments in foreign markets jumped 40%.

But POSCO is not the only company that makes investments in overseas markets. Dongkuk Steel Mill Co., Korea's third-largest steelmaker, is also investing 5.5 trillion won (US$4.9 billion) in the construction of a steel mill in Brazil.

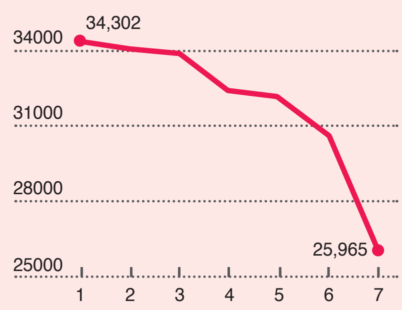
**Export Trend of Korean Products by Emerging Country**

Unit : % (Increase rate compared to last year)
US$100 Million (This year's export amount until July)




Source : Ministry of Trade, Industry and Energy (MOTIE)

**Hyundai Motor's Sales Trend in Indian Market** (Unit : car)




Source : Hundai Motor Company

### Korea's Electronics Industry Likely to Be Affected

The domestic electronics industry also began to keep a close eye on the situation. Samsung Electronics is running seven factories that manufacture TVs, mobile phones and home appliances in Brazil, Mexico, Egypt, and India although the company is exporting massive volumes of its products to those countries. A spokesperson for Samsung Electronics said, "We think that fluctuations in currency can have a negative effect on our export performance. So, we are closely monitoring the situation," adding, "We anticipate that the rise in raw material prices will eventually happen."

LG Electronics is in trouble as well. Since 2009, the company has concentrated on the expansion of its brand shops in rapidly growing and volatile economies of some Asian and Latin American countries. LG has been heavily involved in those markets due to the financial crisis in the US and the EU.

For mobile phone makers, the smartphones market in India, one of the world's major markets together with China and the US, is of concern. According to the latest research from Strategy Analytics (SA), Samsung's market share in India was 42%, ranking top in the first quarter of this year. Until last year, its annual growth rate for the Indian mobile phone market was 163%, surpassing that of markets in China (86%), Japan (24%), and the US (19%). But the market research firm says that in case of contraction in local demand, it is difficult to expect rapid growth.

### Construction, Chemicals, Shipbuilding, Shipping Industries Not Expected to Suffer Heavily

Construction companies, chemical suppliers, and shipping companies in Korea, for which emerging markets are of little importance, are also keeping a close watch over the situation while anxious about the global economic contraction arising from those countries' currency crisis.

However, the construction sector does not think that they are highly vulnerable to exchange rate fluctuations since they are mostly paid in dollars. An industry source remarked, "We are not heavily affected by exchange rate volatility in that we mostly purchase materials in neighboring countries in dollar. But we think that shrinking economy may cause a slight decrease in demand."The chemical industry is not feeling the economic pain, either. Exports to certain Asian and Latin American countries are miniscule amounts. Besides, locally made products are consumed by local people.

The shipping sector, like the chemical industry, is not directly hit by economic woes of rapidly growing and volatile economies. Nonetheless, shipping companies consider the possibility of some reduction in commercial traffic caused by economic slowdown. An official in Hyundai Merchant Marine (HMM) pointed out, "The emerging markets account for merely 10% of the total markets. But there is possibility of reduced commercial traffic and a decrease in ocean freight rates. So, we will wait and see what happens next, and prepare for measures if necessary."

The Korean securities industry also believes that the impact of speculation about emerging economies on the shipping industry is minimal owing to increasing freight rates, as well as expectations that the condition in the shipbuilding industry will improve thanks to economic recovery of the Euro zone. Analyst Lee Kang-rok from Kyobo Securities said, "We are temporarily witnessing the stock price adjustment process for the shipping industry caused by rumors about economic crisis in volatile markets in Southeast Asia. But Korean companies are expected to win more contracts in September when the vacation for European ship-owners is over."

The situation in some Asian and Latin American countries is affecting our exports at the moment. According to Korea's export performance from January to July 2013 by the Ministry of Trade, Industry and Energy (MOTIE), the growth of Korean exports to India fell 7.1%from a year ago. Korea also saw a year-on-year decrease of 15.7% and 15.1%in exports to Indonesia and Brazil respectively. Given that Korean exports grew 0.5%so far this year, exporters find themselves floundering in those markets for seven months.

But Cho Hak-hee, representative from the Washington Center of the Korea International Trade Association (KITA), commented, "The possibility that all emerging markets will experience economic crisis at the same time is low. So, I think that Korean companies will be able to overcome the situation because each country is in different circumstances."

Korea does not rely heavily on India and Indonesia as its markets for exports. In the first quarter of this year, the growth rate of exports to those countries stood at 2.08% and 2.18% each. And yet, the government is closely watching situation in the region since the economic crisis can be contagious.

Kwon Pyung-oh, deputy minister for the Office of International Trade and Investment at the Ministry of Trade, Industry and Energy (MOTIE), said, "We are carefully monitoring Federal Reserve' next move to end its quantitative easing program, and the ongoing situation in emerging markets."

## PRESIDENT'S LIBERATION DAY SPEECH

# Urging Japan to Change its Attitude

On August 15, President Park Geun-hyemade a congratulatory address at the ceremony celebrating the 68th National Liberation Day held in the Sejong Center for the Performing Arts.

On August 8, the Japanese conservative daily Sankei Shimbun reported that the Japanese government is moving to officially use the wartime national flag called "rising-sun flag symbolizing imperial Japan.

According to the Japanese daily, Abe government decided to clarify its position after the Korea Football Association filed a protect against Japanese soccer fans for unfurling the rising sun flag during a match against Korea in the East Asian Cup in Korea last month.

Moves to allow the use of the rising-sun flag are expected to aggravate already frosty relations with Korea and China, where the flag is seen as the equivalent of the Nazi swastika in Europe. Such moves also would buttress the far right supported by the government of Shinzo Abe, which wants to revise Japan's pacifist postwar constitution, which puts tight limits on military activities, and retracts apologies for wartime and colonial brutalities. In fact, relations between Korea and Japan have deteriorated further in recent months since the right-wing Abe government took office in Japan.

The political circle in Korea criticized unanimously against the Japanese government's move to allow the use of the rising-sun flag.

"It is a sheer act of disrespect to history that the Japanese government is trying to officially recognize the flag symbolizing their war criminals, which cannot be justified under any pretext," said Min Hyun-joo, a lawmaker and spokeswoman of the ruling Saenuri Party.

Bae Jae-jeung, a lawmaker and spokeswoman of the main opposition Democratic Party also said, "From the recent series of moves, one can feel a dark force that Japan is trying to remove its yoke of a war criminal and head toward a revival of militarism," adding, "It is time for the international community to issue a strong response to the Japanese government, which does not sincerely repent of its past."

Sankei claimed the old flag has become "globally accepted" with even the U.S. military, which fought against Japan during World War II, raising no objections. The daily added that the Korean government's attempts to oppose use of the flag is based on "anti-Japanese nationalism" and even warned it could hurt bilateral military cooperation between Korea and Japan.

For years after Japan's defeat in World War II, the Japanese government prohibited the use of the flag in public. In 1954, however, Japan's Self-Defense Forces began using a modified form featuring eight red sunbeams instead of 16. Japan's navy flies the flag on its vessels. In private sector, the rising sun flag has been mostly used only by ultra rightwing groups but recently more widely used on cups and T-shirts and for sports matches. BK

### Roundabout Admonition to Japan

US Senate Foreign Relations Committee Chair Calls for Japan's Acknowledging the Past

Chairman of the US Senate Foreign Relations Committee Robert Menendez said on August 19, during his visit to Korea, that Japan would be able to be free from the past only when it searches its soul.

On that day, he visited the Asan Institute for Policy Studies to deliver a speech and have a press conference. In response to a question about Japan's retrogression to nationalism, the deteriorating relations between Korea and Japan and the role of the US there, he answered, "Historical and diplomatic disputes between Korea and Japan must be resolved because that is the only way the two countries can fully realize their potentials as partners." He explained, "Although the case is somewhat different, my country could become a strong nation only after the abolishment of the slavery."

He continued, "Both of the countries need to be willing to recognize each other's efforts to overcome historical challenges because it will do good to both of them." Experts are saying that he, by saying so, urged Japan in a roundabout way to face the music with regard to its past wrongdoings.

JAPANESE “RISING-SUN FLAG”

# Sparking Another Tension between Korea and Japan

Japanese “Rising-sun Flag”

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Bae Jae-jeung, a lawmaker and spokeswoman of the main opposition Democratic Party also said, “From the recent series of moves, one can feel a dark force that Japan is trying to remove its yoke of a war criminal and head toward a revival of militarism,” adding, “It is time for the international community to issue a strong response to the Japanese government, which does not sincerely repent of its past.”

Sankei claimed the old flag has become “globally accepted” with even the U.S. military, which fought against Japan during World War II, raising no objections. The daily added that the Korean government’s attempts to oppose use of the flag is based on “anti-Japanese nationalism” and even warned it could hurt bilateral military cooperation between Korea and Japan.

For years after Japan’s defeat in World War II, the Japanese government prohibited the use of the flag in public. In 1954, however, Japan’s Self-Defense Forces began using a modified form featuring eight red sunbeams instead of 16. Japan’s navy flies the flag on its vessels. In the private sector, the rising sun flag has only been used by ultra-right-wing groups, but recently more widely used on cups and T-shirts and for sports matches. BK

### Radioactive Rising Sun Flag

On August 16 Novelist Lee Oi-soo created controversy online after revealing a photoshopped picture of the Japanese Rising Sun Flag with a radioactive warning mark in the center.

The Rising Sun Flag is Japan’s national flag with red stripes spreading out from a center circle like a sun’s rays, representing Japanese nationalism and militarism.

Lee Oi-soo posted this picture and tweeted, “The rising poop flag, please RT to spread globally.”

The picture sharply parodied the Rising Sun Flag by replacing the center circle with a radioactive warning sign.

Top comments by the public on the flag included such reactions as “Lee Oi-soo’s radioactive Rising Sun Flag, well done to whoever made it”, “Lee Oi-soo’s radioactive Rising Sun Flag, making the Japanese feel guilty”, and “Lee Oi-soo’s radioactive Rising Sun Flag, are there any other parodies?”

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LOCAL FINANCE ASSOCIATION

# Committed to Improving People's Living Standards

CEO Kim Hong-gab of the Local Finance Association

Local Finance Association (LOFA), which was established in 1964 by local governments nationwide, is fulfilling its role as a leading financial aid provider for local government in Korea. Although challenges are continuing in the form of large-scale disasters caused by climate change and fierce competition against insurers in the private sector, LOFA is striving to turn such challenges into opportunities and further expand the scope of its business so as to better suit the needs of its members.

The oldest one of its mutual aid businesses is that for disaster recovery. When disasters occur at buildings and facilities owned, used or managed by local governments, LOFA grants repair subsidies so that local governments can stabilize their financial conditions. Member fees (insurance premium) are approximately 35% cheaper on average than those imposed by private-sector property insurance companies, while the coverage ranges from damage by fire, storm, snow and floods to the collapse of old buildings, explosions and damage done to public properties due to terrorism activities. For example, it granted more than 20 billion won to public properties affected by the typhoons Bolaven and Taenvin last year, thereby greatly reducing the financial burdens of local governments.

At the same time, LOFA has introduced damage compensation for local governments so that they can benefit when mistakes are inadvertently made during the establishment and management of public structures and works. The average member fee is roughly 20% cheaper, with mutual aid benefits available even in cases rejected by property insurers in the private sector.

More recently, LOFA entered the administrative indemnity business in January this year. The purpose is to pay reparations in the event of damage incurred by administrative action between a local government and a civil petitioner. This is regarded as one of the most effective forms of compensation for damage attributed to mistakes on the part of local governments. In particular, the financial resources accumulated by such businesses have been offered to members suffering from natural disasters. For instance, seven local governments, including Icheon City in Gyeonggi Province and Inje County in Gangwon Province, were designated as special disaster zones in July this year due to heavy rain and received approximately 200 million won for disaster recovery purposes. Furthermore, LOFA has provided members with inspection costs for accident prevention regarding public facilities and training expenses for public officials in charge of common property management, as well as publishing books and holding seminars on local finance so as to increase awareness of the sector and expedite its growth.

In the meantime, it established the Out of Home Advertising Center five years ago in order to raise funds for international events such as the Yeosu Expo and the Asian Games in Incheon City. Its Signboard Reform business has been well received by local residents in Sejong City and many other new towns, and serves to develop unique shop signs that reflect local characters. The center is working together with not just other related authorities including the Ministry of Security and Public Administration, but also Sign Frontier (civil monitoring groups) so as to promote the participation of citizens. The groups select the most beautiful signboards each month so that more and more people can become aware of the importance of good-looking advertising signs. "We'll keep striving to better the out of home advertising environment and provide related consulting in order to play a crucial role in the development of the sector," said LOFA CEO Kim Hong-gab, adding, "The Out of Home Advertising Center, which is a supporting agency dedicated to the cause, will make tireless efforts for this goal."

LOFA, which celebrates its 50th anniversary next year, renewed its corporate identity in February 2012, when the incumbent CEO took office. In June this year, it held a vision declaration ceremony along with an event for the rationalization of management and ethical management. At the event, its executive and staff members proclaimed the LOFA Way of customer-focused, accountability, trust, passion and professionalism.

In addition, it announced that it would reach 1.09 trillion won in net asset reserves by 2016, record at least 200 billion won in out of home advertising profits, offer 42 billion won in assistance to its members and be selected as the best organization in the national management performance evaluation. To this end, LOFA has overhauled its cooperation schemes for disaster restoration, established a new framework for communication


LOFA 2013 Management Rationalization Ceremony

and collaboration and reformed its organizational management and customer support systems.

The CEO is also famous for on-site efforts, making decisions based on what he sees and hears on such visits. He has frequently visited local government members since the inauguration in order to better grasp their needs and set a better direction for them. He himself has also spearheaded the promotion of the administrative indemnity businesses this year, meeting and giving detailed explanations to public officials around the country.

LOFA has been involved in a variety of social contribution activities since 2009 after the introduction of the chief culture officer (CCO) position; a first for a public institution in Korea. One of the most well-known examples is the volunteer activities in Wonpyeong Village, located in Chuncheon City, Gangwon Province and at senior welfare centers in Mapo-gu, Seoul City, both of which began three years ago.

During the past years, LOFA has visited the village to help locals with their work and purchased agricultural goods produced by them. It also installed large-sized LED signboards at the Farm Stay Center last year in order to increase awareness of the village as a tourist destination. In the community centers for senior citizens in Mapo-gu, its executive and staff members, five to seven at a time, have taken turns to deliver lunch boxes, clean kitchens and dining rooms, and distribute meals, etc.

In addition, they delivered coal briquettes in 2010 to Baeksa Village situated in Nowon-gu, Seoul, visited single and elderly households during the 2011 Christmas season, and held community chest campaigns in 2012, etc. They have also donated daily necessities, such as refrigerators and washing machines this year to those living in shanty towns.

"We promise that we'll continue with our volunteer activities down the road so as to fulfill our corporate social responsibility and remain a reliable financial partner for our members," the CEO stated, adding, "I believe that such endeavors will contribute to the creation of a society where all people are valued." BK

CEO Kim Hong-gab (left in picture) and employees donated LED signboards to the Wonpyeong Village in Chuncheon City, Gangwon Province.

SMART HIGHWAY

# Aiming to Build the World's Most Intelligent Highways

Lee Eui-jun Managing Director of Korea SMART Highway Study & Application Center

"Creative technologies, including cutting-edge ICT converging technology, will be absolutely needed if we want to change the paradigm of roads to a living space from just transportation infrastructure," said Lee Eui-jun, the managing director of Korea SMART Highway Study & Application Center in an interview with BusinessKorea. He added, "We should continuously locate new models for transportation system that contribute to making life more convenient and safe by converging IT, telecommunications, automotive technologies and road management." However, he felt there was a lack of active participation in the smart highway project by local auto manufacturers. What follows are excerpts from the interview.

**First of all, what is the definition of the Smart Highway Project and what is its background?**

One of the ten key projects launched in 2006 by the Ministry of Construction and Transportation, the predecessor of the Ministry of Land, Infrastructure and Transport, aims to build the world's most intelligent highways.

These days, approximately 80% of traffic accidents on expressways are attributed to driver negligence and Korea records the lowest level of traffic safety among OECD member countries. The Smart Highway Project aims to reduce the accident rate and help people use expressways more conveniently by converging information, automobile and road management technologies.

**The Smart Highway R&D Center is working on innovative technologies in four fields. Please give a brief explanation about these activities.**

The Smart Highway Project can be divided into four fields; the development of road-based technology, traffic management technology using wireless communications, automobile-related technology and the application of the research outcomes.

The first one covers safe driving in adverse weather conditions such as fog and snow, the utilization of natural energy sources in the form of natural lighting and the like, and the development of safety structures such as high-performance barriers and road signs with higher legibility. The idea is to achieve the core values of an intelligent highway system, that is, safety, convenience, punctuality and eco-friendliness.

The second part is associated with combining telecommunications technologies with traffic management in order to prevent chain collisions by dint of vehicle-to-vehicle and vehicle-to-base station communications designed to cope with unexpected contingencies in real time. The development of multi-lane tolling systems, in which tolls can be paid without the need to reduce speed, is also included in this category.

The third one is related to the provision of real-time traffic information for individual cars. In this, comprehensive road and vehicle management systems are established and technologies for lane departure prevention and vehicle control assistance based on road-related data developed.

The last one is research into how such smart highway technologies can be applied on a commercial scale.

**What examples are there of technologies that have been already developed?**

As the first example, I would like to mention the Smart-I, the world's first, and domestically developed, system for automatic incident detection.

The Smart-I monitors expressway sections kilometer by kilometer and provides the administrator with real-time information regarding stone or rock droppings, and broken vehicles, etc. The system is made up of an array of cameras, auto-tracking CCTV and radar. It is capable of detecting such droppings of a minimum size of 30cm within 30 seconds at an accuracy rate of at least 95%.

Once such an unexpected situation is detected, the details need to be transmitted without delay. This is where WAVE, which stands for Wireless Access in Vehicular Environments, comes in. WAVE is the most advanced form of public communications

network for road and traffic management. It is used in vehicle-to-vehicle and vehicle-to-base station communications in the form of complex base stations accommodating DSRC, WiFi and many other networks.

Last but not least, we have come up with a non-stop, multi-lane smart tolling system. Thanks to this, cars do not have to reduce their speed or change lanes for toll stations. It is the first active-type tolling system in the world, and more improved and efficient than existing Hi-Pass tolling and passive systems found in the United States and Europe.

**How great will be the economic ripple effect of these technologies?**

Once the smart highway is built nationwide, a variety of industries such as construction and IT will benefit from it through inter-industry convergence, with new demands in the sectors predicted to result in a production inducement effect of about 7.8 trillion won, as well as the creation of approximately 40,000 new jobs and traffic information-based services worth 130 billion won a year. In addition, it is expected to stimulate the growth of other industries like auto manufacturing and intelligent transportation.

The global intelligent transportation market is currently growing by around 10% each year, with the market size estimated to reach US$18.6 billion by 2015. Many emerging countries around the world, including China, Southeast Asian and Latin American nations, are highly interested in Korea's intelligent transportation systems (ITSs) and we are seeking ways, in tandem with consortiums of construction firms and IT companies, to make profits by launching smart highway construction and management projects in these countries.

**What has been the outcome of such efforts up to now and what are you looking forward to down the road?**

The Smart Highway R&D Center has built and runs a 7.7km-long test section in the Jungbu Inland Expressway in order to verify its feasibility and increase public awareness.

The organization has come up with five world-class technologies, including the above-mentioned Smart-I, a multi-lane tolling system and active-type defogging system, with approximately 70% of these in the completion stage, just one step ahead of commercial utilization. The other 30%, which have yet to deal with the frequency distribution problem, will be employed for commercial purposes once the distribution of frequency resources dedicated to on-road communications is completed.

In addition to such economic effects, it is anticipated that smart highways will reduce the traffic accident mortality rate by 60% and reduce traffic congestion by 15% or so. We predict that traffic congestion costs will be decreased by at least 200 billion won annually if the Gyeongbu Expressway is turned into a smart highway.

Korea Expressway Corporation

**What do you think is the roadblock to the Smart Highway Project and what would you like to say about it?**

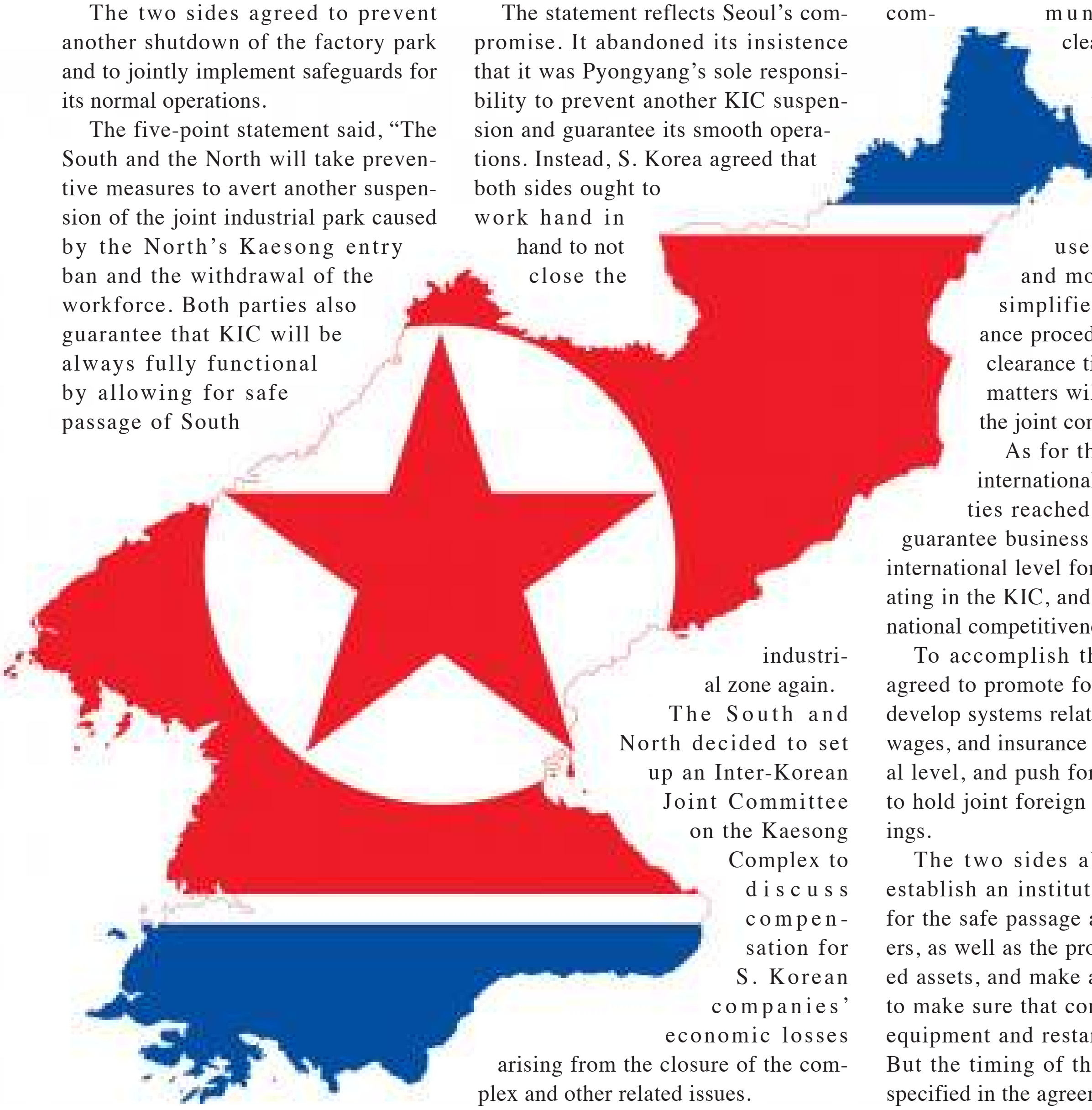
As I said earlier, a smart highway is a concept of convergence between information, automobile, road construction and management technologies, which means it requires the participation of multiple sectors.

What I would like to say is that road transportation R&D projects underway in advanced economies are led by automakers, yet Korean carmakers are as of now not taking a central role in the Smart Highway Project. Their role is essential for not only the project, but also the development of future road transport technologies, and I believe that their active participation will provide better results.

To expedite the development of WAVE technology, the Ministry of Science, ICT and Future Planning has been running a frequency research team in order to distribute the same frequency band as that used in the US and Europe, and which account for 80% of the global ITS market. I hope that the frequency distribution will be wrapped up smoothly through our negotiations with terrestrial broadcasting companies using the frequency band for mobile broadcasting purposes.

### KAESONG INDUSTRIAL COMPLEX

# Agreed to Reopen, but Fell Short of Agreeing When



On August 14, South and North Korea adopted a five-point agreement to resume operations of the Kaesong Industrial Complex (KIC) in the seventh round of working-level talks.

The two sides agreed to prevent another shutdown of the factory park and to jointly implement safeguards for its normal operations.

The five-point statement said, “The South and the North will take preventive measures to avert another suspension of the joint industrial park caused by the North’s Kaesong entry ban and the withdrawal of the workforce. Both parties also guarantee that KIC will be always fully functional by allowing for safe passage of South Koreans,enabling North Koreans to work, and protecting corporate assets,with the inter-Korean industrial park not to be affected by inter-Korean situations in any circumstances.”

The statement reflects Seoul’s compromise. It abandoned its insistence that it was Pyongyang’s sole responsibility to prevent another KIC suspension and guarantee its smooth operations. Instead, S. Korea agreed that both sides ought to work hand in hand to not close the industrial zone again.

The South and North decided to set up an Inter-Korean Joint Committee on the Kaesong Complex to discuss compensation for S. Korean companies’ economic losses arising from the closure of the complex and other related issues.

Both sides also reached the conclusion that they will ensure the safety of South Koreans, protect businesses’ investment properties and resolve issues, such as the South’s passage, communications, and clearance.

Regarding those issues, they agreed to ensure S. Koreans’ free passage, their use of the Internet and mobile phones, the simplified customs clearance procedures, and shorted clearance time. The practical matters will be addressed at the joint committee.

As for the issue of KIC’s internationalization, both parties reached an agreement to guarantee business conditions on an international level for companies operating in the KIC, and develop its international competitiveness.

To accomplish those goals, they agreed to promote foreign investment, develop systems related to labor, taxes, wages, and insurance on an international level, and push forward with a plan to hold joint foreign investment briefings.

The two sides also promised to establish an institutional framework for the safe passage and stay of workers, as well as the protection of invested assets, and make a concerted effort to make sure that companies maintain equipment and restart their facilities. But the timing of the restart was not specified in the agreement.

The Ministry of Unification pointed out, "This agreement is significant in that it can prevent future business interruption of the KIC and pledge stable operations in many ways," adding that diverse measures were created for written promises, structural guarantees from a permanent consultation body, and practical assurances through participation in international society.

In the meantime, South Korean firms in the complex could not contain their joy, clapping their hands as news came that Seoul and Pyongyang reached an agreement to normalize the operations of the Kaesong industrial park.


On August 14, representatives from S. Korean companies welcomed the news with tears in their eyes, while waiting for the result of the working-level talks in the building of the Korea Federation of Small and Medium Business (Kbiz) in Seoul.

Ok Sung-suk, the vice-president of the Business Association for the KIC, said, "The saddest event in my life was the temporary closure of the industrial park. The most cheerful one is, of course, its normalization. So, I'd like to run my business with renewed vigor and determination."

Han Jae-kwon, the chairman of the Emergency Measure Committee for KIC's normalization, said, "I sincerely welcome the conclusion of talks," adding, "I think that it takes one to two months to normalize business operations. Considering the time needed for obtaining orders, its actual normalization is expected to be done in the second half of 2014."

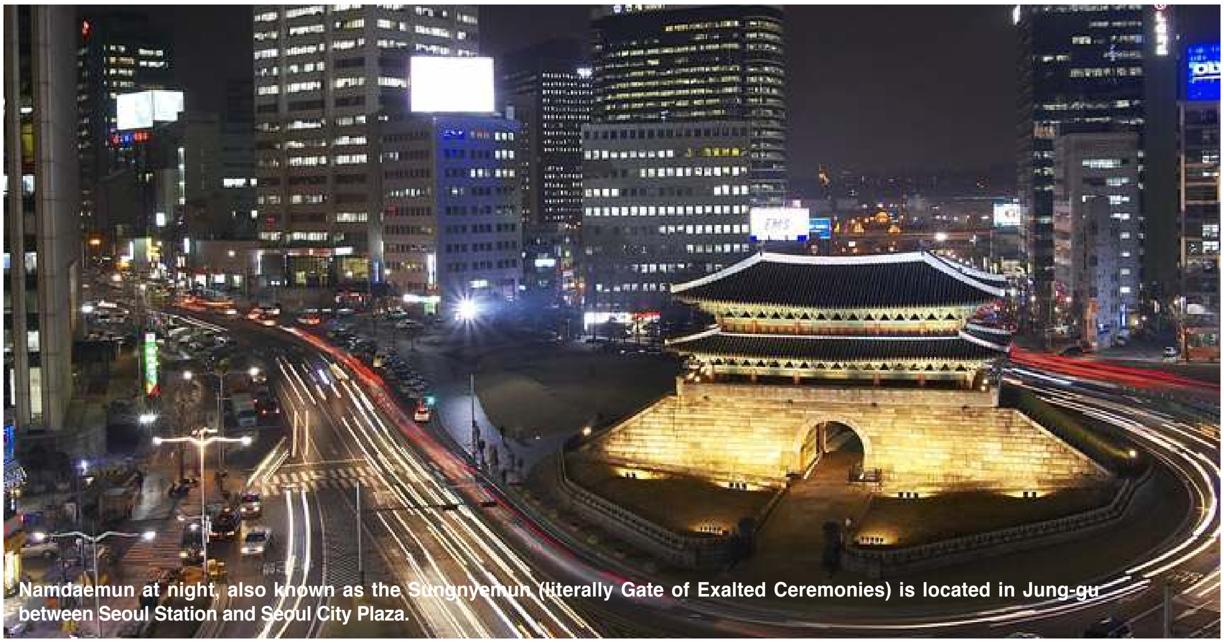
South Korean companies in the KIC issued the following statement on the same day: "We will try hard to further develop the Kaesong industrial park as a place for South and North economic cooperation activities to achieve harmony and co-prosperity of the KIC, aiming for the eventual unification of the two Koreas. We will also do our best to improve its international competitiveness so that it becomes a favorable place for overseas investment." BK

KOREAN ECONOMY

# Falling into a Middle Income Trap?

Korea was analyzed to have fallen into a middle income trap after losing its speed chasing economically-advanced nations by President Lee Geun of the Center for Economic Catch-up on August 13.

At a seminar titled "A Nation's Catch-up, Passing, and Falling – A Commentary on Korean Economics" hosted at the Korea Chamber of Commerce and Industry, President Lee, who is also an economics professor at Seoul National University, said, "For the past 10 years, Korea has not seen any special changes in its trends and stopped its economic catch-up." The center revealed two statistics, a Catch-up Index and Catch-up Speed Index. The Catch-up Index indicates how much progress a nation has made in order to catch up with economically-advanced nations in first place. The Index is calculated as an average of the sum of the nation's gross domestic product (GDP) per person and the nation's proportion of the world's GDP. The Catch-up Speed Index indicates how quickly a nation caught up economically when compared to other nations.



Namdaemun at night, also known as the Sungnyemun (literally Gate of Exalted Ceremonies) is located in Jung-gu between Seoul Station and Seoul City Plaza.

The center analyzed the 2001-2011 Catch-up Index results of the top 100 nations by GDP and concluded that in 2011, Korea's economic Catch-up Index was 26th out of 100. This is far behind Korea's rival nations such as Singapore (6th place), China (8th), and Taiwan (23rd). Compared to advanced nations like the US (1st), Japan (4th), Germany (5th), and France (9th), Korea shows a considerable gap.

Lee explained, "Korea's Catch-up Index has lingered between 30th (in 2001) and 26th (in 2011), showing no overall change," and added, "When compared to advanced nations, Korea shows a low level of catch-up achievements and does not seem to pursue economic catch-up."

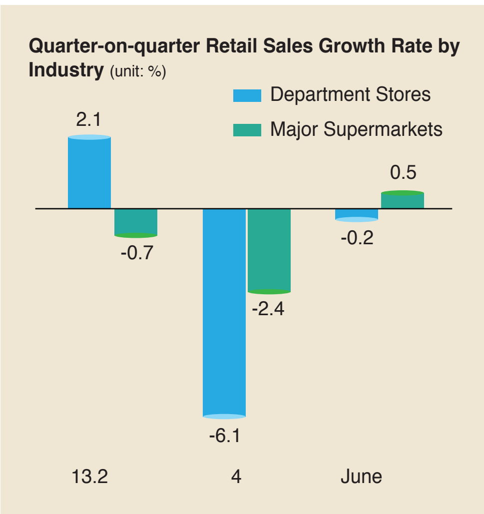
Korea's Catch-up Speed Index was behind as well. In 2011, Korea's Catch-up Speed Index was 56th out of 100. This was actually ahead of some advanced nations such as Germany (60th), the US (85th), and Japan (90th), but behind emerging nations like China (8th), Russia (15th), Brazil (42nd), Taiwan (51st), and Mexico (53rd).

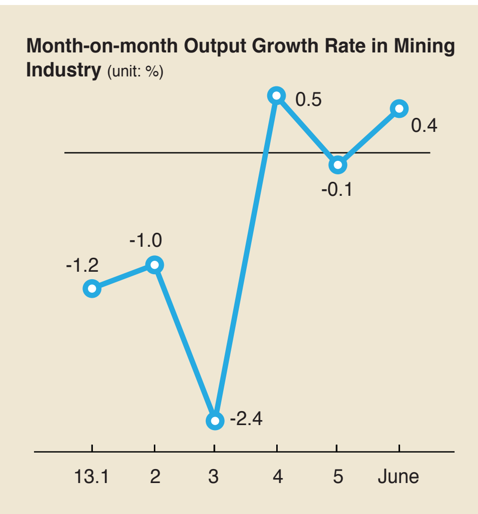
In the calculation of the Catch-up Speed Index, a nation's rate of increase of income per person and its proportion of the world's economy are included. Korea showed an average of a 4% rate of increase of income per person from 2003 to 2007. However, the proportion Korea takes in the world's economy decreased from 1.87% in 2005 to 1.61% in 2011. On the other hand, China increased its proportion from 4.99% to 10.54% and Brazil from 1.95% to 3.60%.

Lee explained, "The fact that Korea ranked 56th in the Catch-up Speed Index proves that Korea is no longer trying to catch up economically with other nations," and added, "It implies that Korea has low achievements in catching-up compared to advanced nations, as well as how Korea is stuck trying to move on to becoming an advanced nation instead of a middle income nation."

ECONOMIC INDICES

# Showing Signs of Rebound




Some economic indices are showing signs of turnaround. The quarter-on-quarter real GDP growth rate topped 1% for the first time in nine quarters in Q2 and the industrial output index is showing a positive sign as well. Nevertheless, the picture is not that rosy in actuality in some sectors. The views of the government and private-sector economists are mixed, too.

## Views of Economists are Split

According to the data published on July 30 by the Statistics Korea, the mining industry production increased 0.4% from a month earlier in June. Between April and May, the output had decreased by 0.1%. The mining industry production data is one of the most frequently quoted indices, covering the manufacturing, mining, electrical, gas and water supply sectors.

However, the overall industrial output including the service industry production declined by 0.3% during the same period due to the sluggish performance in the service and public administration sectors. In particular, the service industry output fell by 0.1% from a quarter ago despite the new housing market policy package that was made available on April 1 to stimulate the real estate lease business.

The indices on the demand side are sending mixed signals as well. For example, the month-on-month retail sales growth rate, which had been negative 0.7% in April and 0% in May, reached 0.9% in June thanks to a rise in the sale of durable goods such as automobiles. Some experts are pointing out the statistics is misleading though. According to them, the government had cut the special consumption tax rate in Q4 last year to result in decreased consumption in Q1 this year and the recent increase in the retail sales is attributed to the base effect. This is evidenced by the recovery in automobile sales in Q2. During the period, consumers spent less money in department stores while spending more in major supermarkets, which means they are tightening their purse strings.

The capital expenditure recorded a 4.5% growth between May and June but declined by 7.8% compared to the same month of last year. Local builders received a less-than-expected amount of construction orders, too.

Under the circumstances, the Bank of Korea and the Statistics Korea are coming up with mixed data to make business forecasting more difficult. For instance, the central bank has recently announced that the production in the manufacturing sector increased 0.8% between Q1 and Q2, 2013. Meanwhile, it dropped by 1.5% according to the statistical office's data.

## Private-sector Experts are Rather Skeptical

The government welcomed the news about the GDP growth rate and mining industry production, saying that its economic stimulus efforts are bearing fruit. "The recovery momentum is spreading as the indices are improving in most of the sectors excluding the service industry and public administration," said the Ministry of Strategy and Finance, adding, "We need to also focus on the fact that the cycle of leading economic indicators has posted growth for the third consecutive month as well."

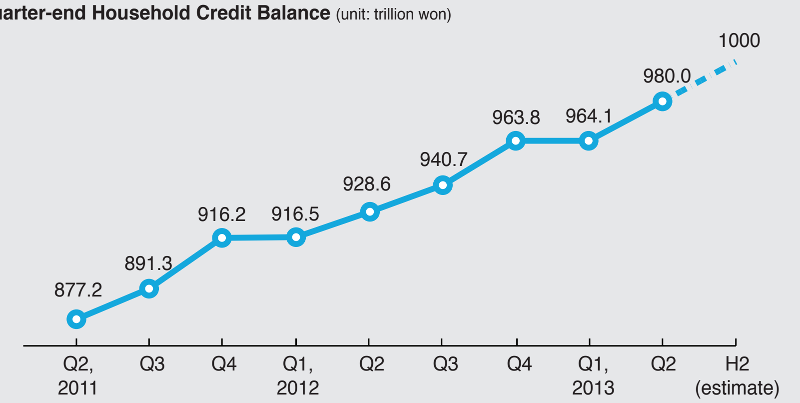
On the contrary, private-sector economists are taking a cautious approach. "It is too early to mention economic rebound based only on the Q2 data," Korea Investment & Securities research analyst Jeon Min-kyu remarked, continuing, "The industrial output index is characterized by its high volatility and low reliability and the hard fact is that Korea's current industrial output level is not much different from two years ago." As a matter of fact, its industrial production index edged up just by 0.2 points from 106.6 to 106.8 between June 2011 and June 2013.

"Economic recovery is impossible without capital expenditure but the current situation is not good as exporters are going through hard times," added Park Seong-wook, researcher at the Korea Institute of Finance. He emphasized, "In the end, the key is how fast advanced economies make a rebound."

HOUSEHOLD CREDIT BALANCE

# Estimated to Top 1,000 Trillion Won within This Year

**Quarter-end Household Credit Balance** (unit: trillion won)




Source: Bank of Korea

The size of household debt reached 980 trillion won, the highest ever in history, in the second quarter of this year as the housing loans skyrocketed before the acquisition tax reduction expired in late June.

The total is highly likely to top 1,000 trillion won before the end of this year as more people are expected to get new houses in the third quarter and given the past trend of the household liabilities having increased in the latter halves. The government is planning to come up with additional measures for housing market revitalization, too. The increasing house deposit loans and those for living expenses are expected to put further pressure on the indebted households as well.

According to the Bank of Korea's data made available on August 22, the credit to households increased by 16.9 trillion won between April and June this year. The sum amounted to 980 trillion won as of the end of June, recording a 5.5% growth year on year. The rate of increase had been 5.1% in Q1, 2013.

The household loans soared by 17.5 trillion won during the three-month period to 926.7 trillion won. The increment had been approximately 3.3 trillion won in Q1 this year but expanded more than five-fold as more loans were taken out by home buyers before the expiration of the acquisition tax reduction.

The household credits provided by deposit banks had decreased by 4.9 trillion won in Q1 but went up by 8.3 trillion won in the following quarter to add up to 470.7 trillion won. The increased amount grew 3.5 trillion won when compared to Q2, 2012. Those handled by non-bank depository institutions increased by 3.1 trillion won in the preceding quarter as well and the balance reached 195.8 trillion won, driven mainly by such seasonal factors as May being the family month, loans taken out by farming households and the current economic recession. The non-bank institutions including savings banks are characterized by higher lending rates and thus the rapid increase in the loan balance is likely to affect the household debt situation.

In the meantime, the balance of lending by the other financial institutions such as insurers and pension funds decreased from 8.1 trillion won to 6.1 trillion won between Q1 and Q2. Still, the loans to households provided by financial intermediaries such as securities firms, special purpose companies and cash lenders increased 4.1 trillion won during the same period, which was 2.4 trillion won less than a quarter earlier.

The sales on credit fell 600 billion won to 53.3 trillion won as the government had announced new regulations on credit cards in October last year and revised the tax law for the promotion of the use of debit cards. Credit card companies' sales on credit had dropped by 3.5 trillion won in Q1 and continued the downward movement by 500 billion won in the following quarter.

Nevertheless, the household debt is likely to surpass the 1,000 trillion won mark sooner or later. In general, the household debt can be divided into the credit to households announced by the central bank and the personal debt related to cash flow. The liabilities of owner operators and non-profit organizations are included in the former category. The former is at around 980 trillion won at present but the personal debt already broken the 1,000 trillion won mark three years ago to amount to 1,158.1 trillion won. International agencies count in the personal debt rather than the credit to households in calculating the household debt.

"The household loan data have shown a trend in which the size increases particularly in the second quarter of each year due to the housing loans taken out by those who move to new houses and in the fourth quarter for and autumn moving season and the year-end effect," said deputy manager Lee Jae-ki at the Economic Statistics Department of the Bank of Korea. Hyundai Research Institute researcher Park Deok-bae advised, "The government would find it wise to focus on the stabilization of the housing rental price so that the size of deposit loans can be limited to some extent."

BANKS' HOUSEHOLD LOAN

# Slowing Down Sharply in July

An apartment complex under construction in Daegu, South Korea.

The growth of household loans by Korean banks sharply slowed in July as housing transactions became sluggish after a tax benefit on home purchasing expired, the central bank said August 7.

Household loans by local commercial banks, including home-backed and credit loans, reached 470 trillion won (US$421.4 billion) as of the end of July, up 100 billion won from the previous month, according to the Bank of Korea (BOK).

In June, household loans grew 4.8 trillion won, the largest monthly growth in six months, as more people took out bank loans ahead of an end-June expiry of the government's tax break over home buying. The tax break is part of the government's measures to boost the slumping housing market.

The BOK said that the slowed growth in household loans was also affected by a seasonal factor as housing transactions usually slow during rainy seasons.

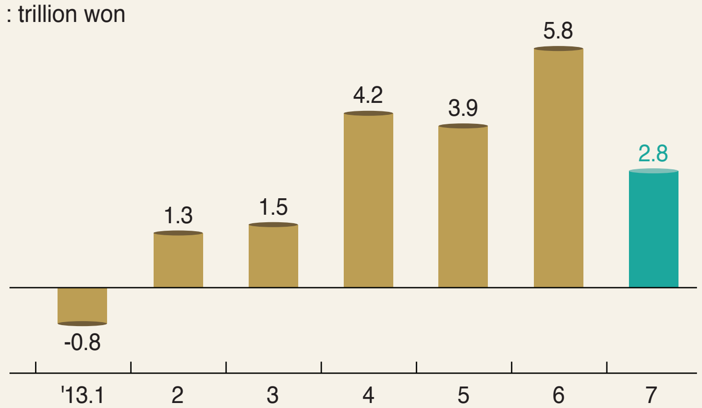
If mortgage loans transferred to the state-run Korea Housing Finance Corp. are taken into account, household loans grew 2.8 trillion won last month, down from a monthly 5.8 trillion won increase in June. Mortgage loans by local banks declined by 14 billion won to 320.4 trillion won in July, it added.

Meanwhile, corporate loans provided by banks grew by 4.1 trillion won to 616.4 trillion won in July on the back of increased loans to larger firms. The growth of bank loans to small and medium enterprises rose by 1.1 trillion won to 464 trillion won in July. Banks' lending to larger companies gained 3.1 trillion won to 152.5 trillion won, it added.

The data came one day before the BOK held its monthly rate-setting session. Analysts said that the BOK is expected to freeze the key rate at 2.5 percent for the third straight month in August.

**The trend of household loans (including home-backed and credit loans)**

Unit : trillion won




<Source : The bank of Korea>

TAX LAW REVISION BILL

# Veering from Higher Taxation on Middle Class to Tackling Tax Evasion

The government and the ruling party agreed to raise the lower limit of annual income for additional taxation from 34.5 million won (US$30,809) to 55 million won (US$49,115) by amending the tax law revision bill for this year.

Ruling Saenuri Party spokesperson Min Hyun-joo announced on August 13 that Prime Minister and Ministry of Strategy and Finance Hyun Oh-seok submitted a report on the new revision plan to the party. According to her, those wage earners with annual incomes of 60 million won (US$53,580) or 70 million won (US$62,510), who would have had to pay 160,000 won (US$142.88) of extra tax a year otherwise, are expected to be able to enjoy a tax cut of 20,000 won (US$17.86) or 30,000 won (US$26.79) per year, respectively. The amount of 55 million won (US$49,115) is the reference line for the middle class used by the OECD, 150% or less of the median income.

Initially, the government was planning to increase the tax imposed on those with an annual income between 34.5 million won (US$30,809) and 70 million won (US$62,510) by 160,000 won (US$142.88) per year. The government planned to adjust the earned income tax rate and reform income tax and tax deductions. However, the new plan is characterized by raising the lower limit to 55 million won (US$49,115).

To this end, the government is going to readjust the earned income tax rate in the income bracket. It originally intended to cut the rate by 3 to 10 percentage points in all income brackets, but the rate of reduction is expected to be decreased. Earned income tax deductions are used to calculate the tax base by subtracting a certain amount from gross salary. The higher the deduction rate is, the lower the portion of the income subject to taxation.

Korea's National Assembly meeting.

According to the new revision bill, total tax revenues are likely to be reduced by approximately 400 billion won (US$357 million) a year. The Ministry of Strategy and Finance is planning to make up for it by thorough investigation into the tax evasion by high-income professionals and the self-employed. Still, the ministry did not accept the request from political circles to withdraw the plan for reducing credit card tax deductions.

"Credit card tax deductions have to do with the household debt problem, and thus it is not easy to change the policy," said the ministry, adding, "We need to provide some advantage for the high-income class as well, and encourage more people to use debit cards instead of credit cards."

Earlier than that, the ruling party had presented plans revolving around a lower tax burden on the working and middle class, heavier taxation on high-wage earners, and support for lower-income workers by means of earned income tax credit and child tax credit. "The government has come up with a new revision plan following our requests," said the party's floor leader Choi Kyung-hwan, adding, "We are looking forward to tax reform in which the middle and working class pay less taxes while fair taxation is strengthened."

The party called upon the government to beef up its investigation into tax evasion by the high-income group and offer subsidies for educational spending and medical expenses to assuage the middle class upset by the initial tax law revision plan. "Once the revision plan is submitted in the regular National Assembly session in September, the Strategy and Finance Committee will go over it with care," said Kim Tae-heum, floor spokesperson of the ruling party.

In the meantime, the Prime Minister refuted the claim that the government is planning for higher taxation in order to spend it on welfare. "It seems that many people are mistaking a tax revenue increase as a tax boost," he said. BK

## LOCAL IPO MARKET

# Failing to Gain Steam

The local initial public offering (IPO) market is going through hard times. Since the beginning of this year, only one company, DSR, was listed back in May, and just one more company, Hyundai Rotem, is expected to join the market before the year ends.

The gravity of the situation is well understood when the numbers of last year and 2011 are taken into consideration. In 2012, the number was six: Huvis, SBI Mortgage, Sajo Seafood, AJ Rent a Car, CJ Hellovision, and GMB Korea. In addition, there were ten more than that the preceding year.

Hyundai Rotem, which was going to list itself on the Korea Exchange this month, has postponed the plan citing dull market conditions. It is expected to be listed between October and November after submitting a securities registration statement reflecting its performance for the first half of this year.

The problem is that it is not easy to maintain the preset IPO price of 26,000 won. Market insiders are pointing out that the stock prices of the listed companies in the same field of business have gone down since the beginning of 2013, and that the IPO price of Hyundai Rotem should be adjusted downward. In that case, the rate of return is cut on the part of Morgan Stanley Private Equity, the second-largest shareholder and financial investor.

In addition, the local lead managers and their foreign counterparts are experiencing conflicts these days. BoA Merrill Lynch has insisted on handling only investment by foreign institutional investors. Managers in Korea such as Daewoo Securities and Woori Investment & Securities are reacting strongly against it.

In the meantime, BGF Retail and Dongbu Life Insurance are scheduled to be listed during the first half of 2014. BGF Retail is working with Samsung Securities as its lead manager. The company is aiming to strengthen its corporate governance structure through an IPO while providing an opportunity for Family Mart of Japan, the second-largest shareholder, to collect its shares.

At present, the market capitalization of BGF Retail is approximately one trillion won and the size of the IPO is estimated at around 200 billion won. Still, experts are saying that the company's performance for this year will be the most important factor in the corporate valuation process with its operating profits having declined by 35.46% year on year to 59.9 billion won last year.

Dongbu Life Insurance had promised the listing in as early as 2010, when it had increased capital by issuing new convertible preferred stocks worth 120 billion won. At that time, the insurer had said that it would guarantee the conversion price of 12,500 won for the protection of its investors even if the IPO price went down below the issuing price of 12,500 won.

The life insurance company's net profits are on the rise. The amount had been 14.4 billion won in 2009 but rose to 21.1 billion won in 2010 and 34 billion won in 2011. BK

**Companies Listed on Securities Market by Year**
(Source: Financial Supervisory Servcie and industry services)

| Year | Companies |
|---|---|
| 2011 | • Doosan Engine<br>• China Gaoxian Fibre Fabric<br>• Hyundai Wia<br>• Iljin Materials<br>• Korea Engineering Consultants Corporation<br>• SeAH Special Steel<br>• Skylife<br>• KOLON Plastic<br>• MK Trend<br>• Hi-Mart<br>• Korea Aerospace Industries<br>• Shinsegae International<br>• Samwon Steel<br>• Nexolon<br>• Intergis<br>• GS Retail |
| 2012 | • KOLON Material<br>• SBI Mortgage<br>• Sajo Seafood<br>• AJ Rent a Car<br>• CJ Hellovision<br>• GMB Korea |
| 2013 | • DSR<br>• Hyundai Rotem (scheduled) |
| 2014 | • BGF Retail (scheduled) Dongbu<br>• Life Insurance (scheduled) |

STOCKS OF SAMSUNG ELECTRONICS

# Losing Momentum in Local Stock Market

The share price of Samsung Electronics dropped for four trading sessions in a row to reach this year's low. Foreign investors have been selling off the stocks day after day in spite of its record-high quarterly sales, ever since the possibility of a slowdown in growth was raised in June.

According to the Korea Exchange, the price declined from 1,522,000 won (US$1,369) to 1,217,000 won (US$1,095) between this year's first trading session and August 8 to post a 20.04% drop. Samsung Electronics accounts for 16.19% of the total market capitalization of the Korean stock market, which is about four times that of Hyundai Motor Company. This means that a drop in the stock price of Samsung could jolt the entire market.

JPMorgan's report published in June tripped it up. In the report, the investment bank mentioned that Samsung Electronics' growth momentum was weakening to drag down the stock price from 1,532,000 won (US$1,378) to slightly over 1,200,000 won (US$1,079) between June and the most recent session.

### Foreign Investors' Net Selling Reaching 320 Billion Won

On July 26, the electronics manufacturer announced that its operating profits for the second quarter was estimated to have grown 47.50% from a year earlier to 9.53 trillion won (US$8.57 billion) while the gross sales and current net income increased by 20.73% and 46.49% to 57.46 trillion won (US$51.65 billion) and 7.78 trillion won (US$6.99 billion) during the same period, respectively.

The business profits reached a new high on a quarterly basis, although it could not meet many market watchers' expectations of 10 trillion won (US$8.99 billion). Nevertheless, foreign investors sold their Samsung shares. The net selling amount added up to 2.94 trillion won (US$2.64 billion) from June to July 26, when the earnings announcement was made, and 323.2 billion won (US$290.5 million) from the following day to August 7. Besides, the discussion of the FOMC's exit strategy is adding oil to the fire.

If the selling spree before the earnings announcement was based on the doubt of the Q2 performance, that following the announcement is due to concerns over the business showings for the latter half. Under the circumstances, some analysts are saying that it will take more time for the share price of Samsung Electronics to make a rebound.

### Lowered Expectations

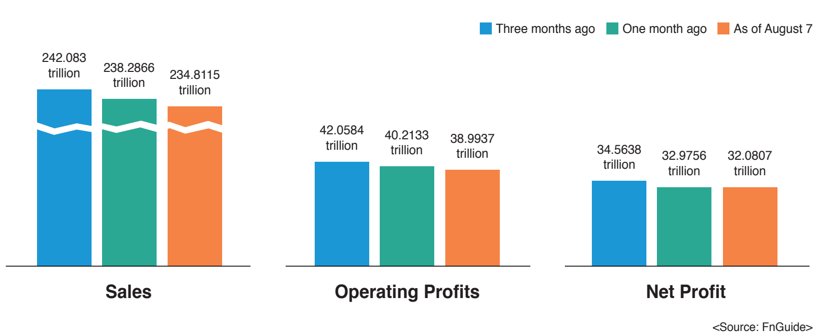
The problem is that investors are lowering their expectations for Samsung. The yearly operating profits estimated by market analysts have been decreased by a couple of trillion won in a month to 38.99 trillion won (US$35.05 billion) and by four trillion won or so (US$3.5 billion or so) when compared to three months ago. The target share price fell from 1.92 million (US$1,728) to 1.85 million won (US$1665) during the last three months.

Meanwhile, economists are predicting that the company will nonetheless be able to continue its growth in H2 this year, even though its profits will increase at a slower pace as the high-end smart phone market is losing steam. "The explosive quarter-on-quarter growth recorded in Q2 would be hard to find, but the growth of profit is likely to continue anyway," said Shinyoung Securities researcher Lim Dol-yi.

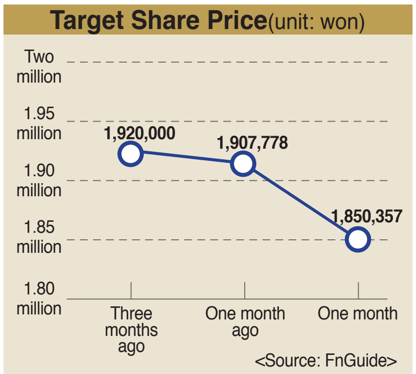
At the same time, the future looks promising for its semiconductor business. The global semiconductor market is expected to grow 29% to US$386.991 billion between 2012 and 2017. In particular, the automobile semiconductor market, one of those where Samsung Electronics is distinguishing itself, is forecast to expand from US$25.941 billion to US$34.711 billion during t he period.

KDB Daewoo Securities research analyst Song Jong-ho explained, "It can be said that Samsung Electronics is one of the most undervalued companies in the global IT industry given that the market capitalization of Qualcomm and TSMC, whose business profits are similar to those of the semiconductor division of Samsung, exceeds 100 trillion won." BK

**Estimated Yearly Earnings of Samsung Electronics for 2013** (unit: won)




**Target Share Price**(unit: won)



KOREAN'S OFFENSIVE

# Full Scale Expansion into US Financial Market

The major Korean financial service institutions are pushing into the American market by acquiring local financial firms in the US and supporting the exports of small and medium-sized enterprises (SMEs) in Korea. The move is part of a strategy for attracting new customers and securing new growth engines through their overseas expansion in the field of financial services.

On August 14 (local time), Hana Financial Group (HFG) got approval of the takeover for the BNB Financial Services Corporation, which is the holding company of Broadway National Bank (BNB), as well as BNB itself, from the Board of Governors of the Federal Reserve System (FRB) in the US, according to sources in the financial industry on August 16. HFG is scheduled to manage the BNB Corporation starting next month, after ending its investment by the end of this month.

Korea’s third-largest financial services group signed a stock purchase agreement with the US-based financial firm in July 2012 and applied for FRB’s approval a month later. In May 2013, HFG also got approval of the incorporation of BNB Financial Services and BNB as its subsidiary and sub-subsidiary respectively from the Financial Services Commission (FSC) in Korea.

Through this merger, HFG is planning to lay the groundwork for business expansion in the North American market, which encompasses the US and Canada.

Hana Financial Group reported that thanks to BNB’s incorporation as a sub-subsidiary, it has established a system that provides comprehensive financial services in the US, including business financial services through its New York branch and trade finance services through local subsidiaries of Korea Exchange Bank (KEB) in New York and Lost Angeles.

Broadway National Bank, regional partner of Jilin Bank and 34 members of the Asia Financial Cooperation Association in North America, will play a role as a financial partner between continents. BNB is also expected to act as an intermediary between North American markets and Southeast Asian ones, including 39 local networks in Indonesia and those in Vietnam and Myanmar.

In early August, KEB reached a business agreement with the Korea Federation of Small and Medium Business (Kbiz) and Korea Trade Insurance Corporation (K-sure) to support Korean SMEs so that Korean companies can land a spot in the retail big leagues in North America.

Korea Exchange Bank also helps Korean SMEs secure liquidity that export their products to large retail outlets in the region that Kbiz recommended, by buying export bonds in advance (discounts on the purchases of export bonds). Through this help, it is planning to assist Korean exporters in maintaining their business and in continually increasing sales by collecting export proceeds early and removing the possibility of losses arising from the failure of importers to pay invoices when due.

The National Agricultural Cooperative Federation (NACF) recently opened its first overseas branch in New York. As its first transaction, Korean business in the region opened foreign-currency deposit accounts.

NACF started its business in New York on August 15. The NY branch is engaged in depository business and overall banking activities such as providing an overseas remittance service; financing import and export; lending in the form of business loans; and payment guarantee, financing, and managing loans.

An official in the financial industry said, “The US is an important market even though it has not been in the spotlight compared to the emerging markets of Southeast Asia,” adding, “Korean financial companies are exploring growth momentum abroad beyond the already-saturated domestic financial market.” BK

Hana / HSBC joint headquarters building in Euljiro, Seoul.

## PENSION FUNDS

# Buying More and More Local Stocks

Local pension funds are increasing stock purchases at a rapid pace in the second half of this year.

They have increased in size for years in the local stock market, and thus their presence there is likely to go up for a while. Still, some experts are voicing concerns that pension funds are stepping in too much in the sluggish stock market.

The word "pension" is also used in South Korea to refer to popular weekend getaway cabins in the countryside, such as these "pensions" designed by architect Moon Hoon.

According to the Korea Exchange, they have net-bought shares worth 1.60 trillion won (US$1.437 billion) since the beginning of the latter half of 2013, 1.83 times more than the size recorded a year earlier. The size had amounted to 4.40 trillion won (US$3.96 billion) in the first half, much more than the 1.06 trillion won (US$952.3 billion) of H1, 2012 as well. If the pace continues, the half-yearly amount is likely to surpass those of H1, 2011 (3.12 trillion won, US$2.8 billion) and H2, 2011 (2.74 trillion won, US$2.46 billion) alike.

The buying spree is found in a variety of industry sectors as well, ranging from electrical and electronics, chemical, transport machinery, and food and beverage to distribution and logistics.

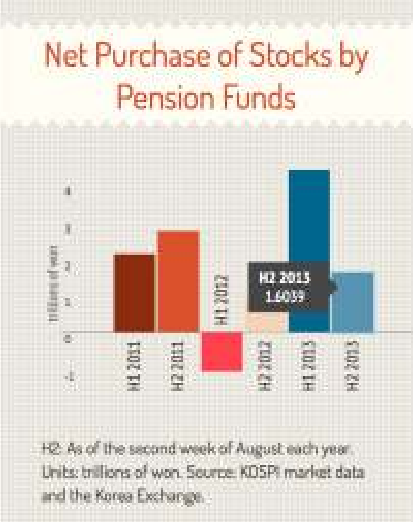
The aggressive stance can be attributed to the increase in the stock holding ratio by the National Pension Service (NPS), which takes up the largest part among pension funds, and the relaxation of the 10% rules. The NPS has recently decided to increase the ratio of stock investment up to 30% of its entire portfolio for the five years to come in an attempt to meet its target return.

Also, the financial authorities are going to ease regulations forcing public-sector investors to observe a five-day disclosure requirement when they own at least 10% of the shares in listed companies. Then, the purchase of blue-chip stocks by pension funds is expected to accelerate.

Another positive factor is the financial authorities' utilization of pension funds for the revitalization of the capital market. These days, the government is striving to make use of more of the national pension fund in the financial industry instead of for welfare purposes.

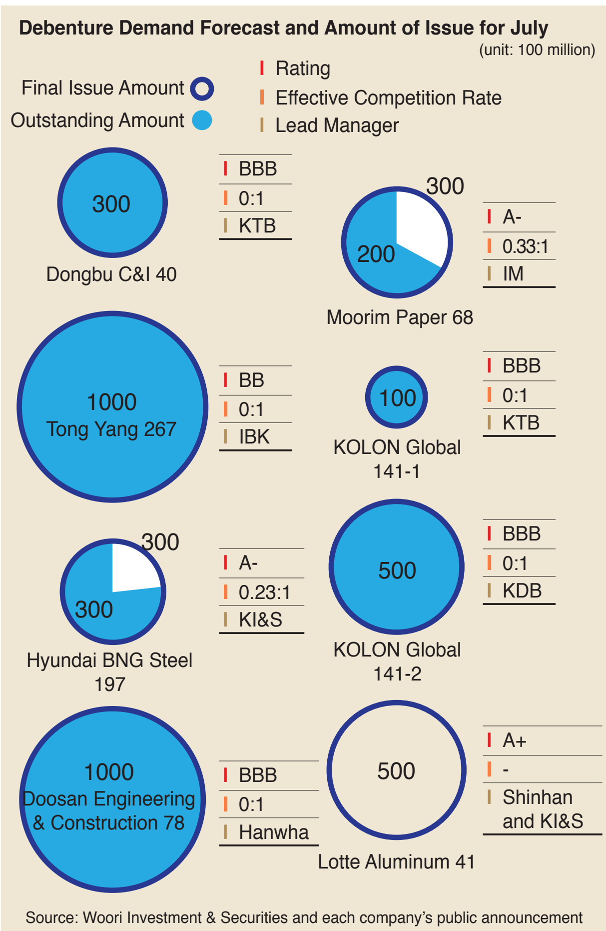
Stock market experts are welcoming the trend. "The pension funds are expanding their size in the absence of a sure-fire investment target," said Samsung Securities research analyst Lim Soo-kyun, adding, "Safety assets' prospect is getting bleaker, and there are many cases in which foreign pension funds have gained much profit through investment in stocks and risky assets, which means the aggressive stance of the local pension funds is nothing to worry about."

Some people are raising concerns, though. "Pension funds are required to go for not only high return but also stable asset management," said an industry source, continuing, "Those concerned over possible fund exhaustion will voice criticism if the pension funds are invested for the purpose of protecting the stock market and dealing with the instability." BK



CORPORATE BOND

# Issuance Amount Dropped 70% from a Year Earlier




Debenture Demand Forecast and Amount of Issue for July

Source: Woori Investment & Securities and each company's public announcement

It has been found that the amount of newly issued corporate bonds stood at just approximately 2.6 trillion won in July and that of the public issue hit the lowest level since the implementation of demand forecast in May 2012. This is attributed to the global interest rate hike due to concerns over the reduction of quantitative easing and unfavorable conditions in the shipbuilding, shipping and construction sectors. Besides, things are even bleaker for companies with low credit ratings as investors are shunning them.

The issue amount of unguaranteed debentures fell for the third consecutive month, 127 billion won down compared to a month ago and 5.6 trillion won down year on year. Also, it is about one-half of the monthly average of 2011 and 2012 and the lowest in three years and six months with the only exception of May last year, when the total had added up to 2.152 trillion won. The issue amount of public debentures decreased by 320 billion won or so and remained at around 900 billion won, the lowest since May last year as well.

A large number of corporate bonds are failing to look for purchasers. According to industry sources, the ratio of outstanding bonds is continuing to soar from 4.5% in January to 24.3% in February, 39.9% in April and 57.3% in June. Although the percentage has gone down to about 40% as of July 25, bonds with low credit ratings are still having difficulties.

Specifically, the percentage is 2% for those with the AA or higher ratings, 38% for the A-rated ones and 100% for those with the BBB or lower ratings. The amount of outstanding bonds (A or higher) was 143 billion won in the demand forecast for the most recent one month and 94.2 billion won-worth of them have been bought through purchase after issue and subscription.

Investors are refraining from entering the market. According to the Financial Supervisory Service's demand forecast data, no investor at all has participated in 59 out of the 284 demand predictions which have been underway since October last year. The ratio of zero investor participation by month increased for four months in a row -- 10.3% in February, 12.5% in March, 25% in April, 31% in May and 38.9% in June. Investors are feeling burden concerning corporate bond issue and distribution as the interest rate volatility is on the rise in the bond market.

It is likely that the outstanding issues will be re-sold in the market with the bond price lowered, that is, with the rate increased. However, this causes the market to shrink by further raising the bond rate as seen in the recent STX Group scandal, which has put not just the vulnerable industries but also the entire corporate bond market into trouble.

Not a few issuers are postponing or cancelling the issue of bonds, too. At present, a total of eight such companies have signed their contracts as lead managers but have yet to start demand prediction, including LG Fashion, Lotte Chemical and Woori Card (AA-rated) and DGB Capital, Dongwon F&B, Hanwha Construction, Lotte Aluminum and Daewoong Pharmaceutical (A-rated).

"It is expected that the market will gain at least some steam once the summer vacation season is over as the interest rate is stabilized and the demand for long-term commercial paper conversion," said Woori Investment and Securities research analyst Lim Jeong-min.

The corporate bond demand forecast took effect in April last year to prevent bond issuers from abusing their dominant position and deciding on the coupon rate not rooted in market principles. According to the system, the issuers have to conduct a demand survey when determining the interest rate and reflect the result to the rate calculation.

INTELLECTUAL PROPERTY SECTOR

# 100 Billion Won to Be Raised for Investment

*Financing Programs Newly Adopted in Intellectual Property Industry

| Classification | Details |
|---|---|
| New Preferred Surety Services | -Financing of funds for intellectual property acquisition and R&D funds by the KCGF and the KTFC<br>-Guarantee rate increased by 5 to 10 percentage points and fee rate cut by 20bps to 50bps |
| New Technology Evaluation Programs | -The KCGF and the KTFC adopting guarantee programs for intellectual property evaluation<br>-The KCGF added to the list of organizations offering technology evaluation fees |
| Sale Credit Insurance for Guarantee of Royalties | -Insurance for the stability of royalty income |
| Expansion of Securitization | -Aggressive securitization by means of the Intellectual Property Fund |

*Source: Financial Services Commission

The government raises a fund of 100 billion won for investment in intellectual properties such as patent rights, trademark rights and copyrights in an effort to boost creative economic activities. New preferred surety programs are put into practice for the intellectual property industry sector, too.

According to the Financial Service Commission's plan made available on July 30, the fund is going to be created as a part of the Growth Ladder Fund that was raised in May for the support of venture firms and start-ups. One-half of the amount is invested in invention capital side and the other half in the venture capital side. The investment is made by purchasing intellectual properties directly from companies or buying asset-backed securities.

The preferred surety programs are launched next month by the Korea Credit Guarantee Fund (KCGF) and the Korea Technology Finance Corporation (KTFC) so that they stand surety when a company acquires another company's intellectual properties. The guarantee rate is between 90% and 95% while the fee is 0.3% to 0.5% lower than those of ordinary guarantee programs in general.

In the same vein, new preferred surety programs for R&D investment are set up by the KCGF. Although the KTFC is running such programs now, the KCGF has not handled them. The guarantee rate is expected to be about 90% to 100%. The programs are provided for companies with excellent intellectual properties. Up to now, the KTFC has provided surety services for technology-centered companies but given no preference to intellectual properties. The fees of the new surety programs are planned to be 0.2% point lower and the guarantee rate is 90% to 95%. The guarantee ceiling is increased from three billion won to five billion won.

The guarantee programs for the evaluation of intellectual properties cover not only patent rights but also intellectual property rights including patents down the road. The fees are cut by 0.3 to 0.5 percentage points while the guarantee rate is increased by 90% to 100%. The fees are offered by both the KCGF and the KTFC.

At the same time, sale credit insurances for royalties are newly brought in. Assuming that a company in possession of patented technology receives patent fees from another company, the former is subject to deteriorated cash flow if the latter goes out of business. However, by subscribing to the insurance and paying a 1.7% premium, the former can receive royalty income regardless of whether the other company is in business or not.

The government is going to come up with plans for the securitization of and security loans for intellectual properties, too. A transaction information system is scheduled to be established by the Presidential Council on Intellectual Property and the Korea Intellectual Property Office along with databases for intellectual property and technology evaluation. Detailed plans are announced before the end of October this year.


## 고속도로에서 꼭 지켜야 할 것!

### 운전 중 DMB, 휴대전화 사용하지 마세요

돌발상황 발생시 평소보다 정지시간이 1.47초 늦어져 고속도로에서는 큰 사고로 이어질 수 있습니다.
운전 중 DMB나 휴대전화를 사용하지 말아주세요

### 졸음운전하지 마세요

최근 5년간 고속도로 교통사고의 약 22%가 졸음운전으로 인한 것입니다.
휴게소와 졸음쉼터를 이용해 충분한 휴식을 취해주세요

### 과속운전하지 마세요

과속운전은 운전자의 시야를 좁히고 위기대응능력을 떨어뜨려 대형사고를 유발합니다. 자신과 가족의 안전을 위해 속도를 조금 더 낮춰 주세요.

### 과적 및 적재불량하지 마세요

축하중 10톤의 과적차량 한 대는 승용차 7만대 만큼의 도로파손 피해를 초래하고, 적재불량으로 무심코 떨어뜨린 물건하나가 타인의 생명과 안전을 위협합니다.

### 안전띠는 꼭 착용하세요

안전띠를 착용 했을 때 보다 사고 사망률이 3배 높아집니다.
고속도로에서는 전 좌석 안전띠 착용이 필수입니다.

한국도로공사

HYOSUNG

# Committed to Social Contribution Both at Home and Abroad


The Smile Expedition of Hyosung visited the Tien Phuoc Elementary School in Nhon Trach, Dong Nai Province to provide free medical checkup for the underprivileged Vietnamese children.

Hyosung has been dedicated to its corporate social responsibility since 2011, sending medical volunteer teams named Smile Expedition to Vietnam each summer and sponsoring renewals of the houses of Korean War veterans. All of its employees have performed social contribution activities at least once a month without exception by organizing the Hyosung Sharing Volunteer Corps as well.

"All enterprises are required to contribute to the making of a better society and their role must not be limited to profit making and this is why we remain committed to our CSR activities," said president Jo Hyun-joon, head of the company's Strategic Division.

### Hyosung's Medical Volunteer Corps Visited Vietnam for the Third Consecutive Year

The Smile Expedition has visited Vietnam each summer since 2011 to provide free medical services for the locals who have little access to regional medical centers.

This year, the team stayed in Nhon Trach, Dong Nai Province, where Hyosung's Vietnam plant is located, between August 18 and 24. It cooperated with the Food for the Hungry, an international relief organization, and more than 20 dentists, pediatricians, ob/gyn surgeons, neurosurgeons, physical therapists, etc. Some oriental medical doctors joined the trip this year at the request of local residents, too. Also, around 50 executive and staff members from the Vietnamese office of Hyosung helped them with interpretation, order maintenance and so forth there.

Home to the company's Spandex and tire cord plants, the Dong Nai Province has few hospitals and medical institutions and the people there have had little access to them for such reasons as poverty, the backwardness of the medical technology and the lack of awareness of disease prevention. The Smile Expedition not only provided free medical treatment but also made a call at the Tien Phuoc Elementary School to offer medical checkup and emergency kits.

### Enterprise-wide Sharing Volunteer Corps Founded for Regular Outreach Activities

In the meantime, the company launched the Hyosung Sharing Volunteer Corps in May this year so that more of its employees can be engaged in outreach activities out of their own volition. The team's idea is to make great contribution to the growth of society as a whole in terms of environment management and public welfare so as to better celebrate the company's 50th anniversary three years from now.

The volunteer corps' activities are characterized by being oriented toward each of the regional communities the main office and subsidiaries belong to. The members of the team have practiced sharing once or more each month at the welfare facilities situated in regions across the country.

### Assistance for Children with Disabilities and Korean War Veterans

In July this year, Hyosung's interns and Sharing Volunteer Corps members went to the Jangkyungri Beach with disabled children to have a good time together, bathing in the sea, digging out shellfish and doing various games. "It was a valuable experience for all of us to participate in the company's outreach programs and build rapport and trust with our neighbors," said one of the interns, adding, "In addition, I could get the grasp of the Great Work Place, which is the business principle of Hyosung."

Also in July 2013, Hyosung held the Narasarang Bogeumjari Donation Ceremony at the ROK Army HQs in Gyeryong City, South Chungcheong Province. The Narasarang Bogeumjari Project, which was launched in 2011 by the Army HQs, has the purpose of supporting the livelihood of Korean War veterans and Hyosung has sponsored the project for two consecutive years.

### Widening the Scope of CSR to CSE

The company is striving to expand the scope of CSR activities from donation and labor services to the concept of CSE, or creating social eco-system, in order to expedite the sustainable growth of society. In addition to the programs mentioned above, it has helped disabled kids and adolescents in tandem with the Purme Foundation and provided anti-school violence education with the Good Neighbors, spearheading the change in the notion of CSR. BK

DOOSAN BUSINESS GROUP

# Making Social Contributions through "Growth and Self-Support of Talented People"

Building completion ceremony on An Bihn Island in Vietnam.

Doosan is actively participating in contributing to society by cultivating talented people for our society's future, based on its social contribution philosophy of "Growth and Self-Support of Talented People." The Yonkang Foundation is at the center of this. The Yonkang Foundation was founded in 1978 as the dying wish of Doosan's first chairman Park Doo-byung, who believed in "Education as the driving force behind national development." Since then, the Yonkang Foundation has been supporting research funds, study abroad programs for teachers, book donations, and operating the Doosan Art Center.

Also, in celebration of the 100th anniversary of Park's inauguration, the foundation established the Yonkang Artist Award in October 2010 for artists under the age of 40 who have high potential to promote Korean performance and fine arts around the world.

Doosan is currently running a project called the Time Traveler to cultivate talented people. This project, which began in July of last year, helps 8th to 10th grade students from schools located in Seoul with photography. It focuses on those students who have difficulty with healthy self-discovery or emotional cultivation due to their home and/or surrounding environments.

Doosan's social contributions continue in its affiliates as well. Doosan Heavy Industries & Construction Company has teamed up with Changwon City to support local government policy projects, local talent cultivation, and minority groups. In fact, it has set up a sisterhood relationship with the Changwon Science High School and signed industrial-educational agreements with specialized high schools and technical colleges to cultivate more talented students. The company also provides scholarships to stellar students from low-income families. In addition, the company is taking an active role in community service through its 8 social service groups and 4 volunteer groups, such as the environmental safety education service group, consisting of 6,400 executives and staff members.

As a global enterprise, Doosan Heavy Industries & Construction Company is also participating in social contributions for its major markets in Vietnam, India, and Southeast Asia. Specifically in Vietnam, where its large-scale manufacturing plants are located, the company is providing medical services, fresh water services, and scholarship services. A community service group of 1,000 on-site employees also provide locally customized volunteering. In India, elementary schools in low-income areas have been set as sister schools for improving the educational environment. Furthermore, the company is doing good work globally, such as supporting victims in Pakistan and Indonesia, restoring Sichuan from earthquake effects, and providing water filtration facilities in Angkor-Wat and Cambodia.

Doosan Infracore Company has been building "Hope Schools" in China since 2001. This is part of the company's "Build Hope" project to build schools and educational environments in rural areas of China. The company has donated a total of 9,850K yuan (about 1.7 billion won, US$1.5 million), as well as building 26 schools in 25 districts, and is in the process building 6 more. Two schools in Sichuan and Liaoning will be completed this year. During the school break, outstanding students and teachers are invited to the Beijing and Yantai facilities for opportunities to participate in Doosan summer camps for broadening experiences.

Doosan Engine Company is using its business characteristic of diesel engine production to participate in marine environmental protection acts. Each quarter, the company does marine environment cleanup projects by collecting Styrofoam, glass bottles, plastic bags, and other trash around the Doosan Engine shipment dock and surrounding seas, including Jinhae Bay. In addition, Doosan Engine signed an MOU with Chungwang School, where about 200 hearing-impaired and physically-handicapped students attend, in order to help disabled students become independent individuals in the society. Also, it cooperates with a local child center to not only provide financial support, but also host company visitation events and outdoor activities.

## DONG-A SOCIO GROUP

# About to Become a Global Pharmaceutical Development Company

In March of this year Dong-A Pharmaceutical Company separated its research center into two parts: Dong-A Socio Holdings Research Center and Dong-A ST Research Center. It also established a new research laboratory for revolutionary medicine in the research center of a shareholding company, all in order to boost the development of new medicines. Since then, the shareholding company has been in charge of developing new revolutionary medicines and new biopharmaceuticals, while Dong-A ST Research Center has been in charge of testing and releasing the medicine developed in this way.

Zydena, an erectile dysfunction treatment medicine released by Dong-A Socio Group in 2005, recently passed its third clinical trial with Warner Chilcott.Zydena, an erectile dysfunction treatment medicine released by Dong-A Socio Group in 2005, recently passed its third clinical trial with Warner Chilcott.

The establishment of a research center for revolutionary medicine represents a transformation from a Fast Follower into a Fast Mover. Through this transformation, the company looks forward to closing the innovation gap between itself and pharmaceutical companies of advanced nations, while becoming more competitive in the global market. In order to achieve this, Dong-A Socio Holdings recruited Doctor Yoon Tae-young, who previously worked at the world's 2nd best transnational pharmaceutical company Novartis Research Center. A medication chemistry research team and a molecular pharmacology research team were formed with about twenty researchers.

The research center plans on expanding its size to over 50 researchers and to begin international joint research projects to export technologies by creating and licensing at least one global revolutionary medicine by 2015. By 2020, it will invest in new revolutionary medicine continuously to license 8 revolutionary substances, three of which will be developed directly by the research center. The center is also focusing on researching cures for Alzheimer's disease, anticancer drugs, and pain relievers.

Dong-A Socio Group's efforts to create a new medicine started in 1977 with the foundation of the research laboratory and continued in 1994 with the development of a cure for multiple myeloma called Interferon Alfa. In 1999 it released Leucostim as an adjuvant chemotherapy, and Growtropin as a 2nd generation growth hormone. In 2002, the first new medicine to cure gastritis, called Stillen, was released. By 2005, the Group released a second new medicine, Zydena as an erectile dysfunction treatment. Stillen and Zydena were deemed successful, combining both marketability and medicinal effects. Zydena, Korea's first erectile-dysfunction cure, shows especially high potential to become the next global medicine. It recently passed its third clinical trial with Warner Chilcott Company in the US and is preparing for an item grant application with the US FDA. In August 2011, Shanghai Pharmaceutical Group, the largest pharmaceutical company in China, signed an exclusive sales contract for this medicine. In December, Meiji Seika Pharma of Japan signed a licensing contract for the medicine as a cure for prostatism.

After the success of Stillen and Zydena, Dong-A released its third new medicine, Motilitone, to cure functional dyspepsia. Motilitone is made of morning glory seeds with a natural substance extracted from a corydaline tuber, and has no side effects. This drug clearly improves gastric emptying while reducing internal hypersensitivity reactions.

The super bacteria antibiotic DA-7218 technology exported to Trius Therapeutics of the US, a company specialized in developing antibiotics, also successfully passed its third clinical trial and is preparing for an item grant application with the US FDA. This antibiotic needs to be taken only once a day and cures symptoms in 5 to 7 days. It is expected to be more convenient and more affordable for patients. The goal is to release the 2014 super bacteria antibiotic worldwide.

Dong-A Socio Group is also picking up on its development of biopharmaceuticals. It has founded a bio-industrial complex, and in September 2011 cooperated with Meiji Seika Pharma of Japan to develop biosimilars, then formed a business promotion bureau to increase professionalism, all to expand its biopharmaceutical development. Through animal cell culture technology constructed by developing Eporon (EPO), Growtropin (hGH), Leucostim (G-CSF), and Gonadopin (FSH), Dong-A is developing Interferon-Beta, hemophilia cures, and more. Sustained release agents (hGH, G-CSF) converted into a once a week injection type is undergoing clinical trials. It is also spurring the development of DNA cures, antibody cures as the next generation, new technology products. A recombinant protein medicine is in its third clinical trial phase as a cure for anovulation and infertility. A multiple sclerosis medicine and a DNA medicine cure for brain cancer are undergoing first clinical trial phases. Cures for gaucher disease, hemophilia, and anemia are undergoing pre-clinical trials. BK

Dong-A Socio Holdings Research Center

DRAM MARKET

# SK Hynix's Share Jumps to 30% for the First Time

Dynamic Random-access Memory (DRAM) is an essential part of every computer system.

SK Hynix achieved the highest market share of its history in the global DRAM market thanks to the price increase of DRAM for PCs.

On August 9, online semiconductor commerce website DRAM Exchange reported SK Hynix's Q2 DRAM sales of 2.843 trillion won (US$2.558 billion) showed a 40.7% increase compared to its Q1 sales of 2.022 trillion won (US$1.819 billion).

Accordingly, SK Hynix's DRAM market share jumped from 26.5% in Q1 to 30% in Q2, securing its second place in the global market. This is the first time for SK Hynix to have DRAM market share in the 30s.

Also, SK Hynix caught up with the market-leading Samsung Electronics (32.7%) by narrowing the share difference down to 2.7% points. Samsung Electronics marked 3.106 trillion won (US$2.794 billion) for its Q2 DRAM sales, increasing 7.7% from its Q1 sales of 2.883 trillion won (US$2.594 billion). Meanwhile, its market share dropped from 37.8% to 32.7%.

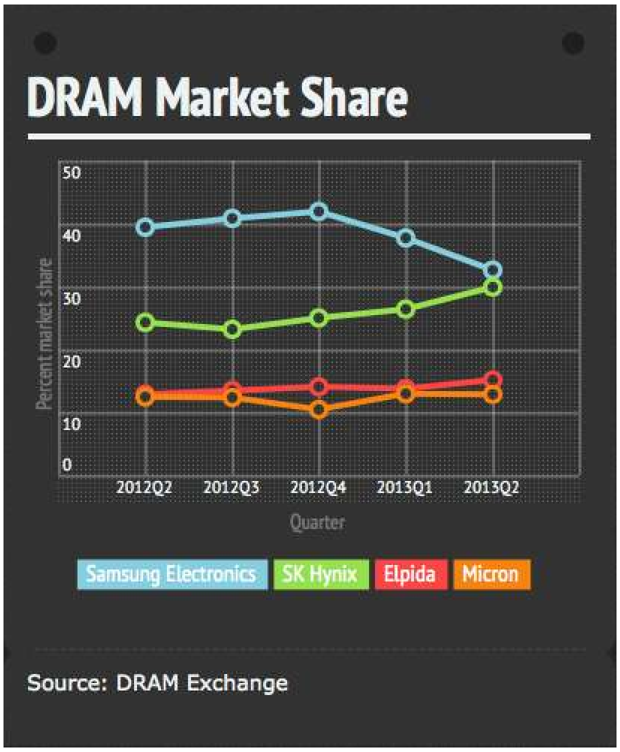
SK Hynix's Q2 market share became higher than the combined share of the recently merged Elpida of Japan (15.2%) in 3rd place and Micron Technology of the US (12.9%) in 4th, thus providing a positive market outlook.

The price increase of DRAM for PC played the most crucial role in the sky-rocketing of SK Hynix's market share. The price of DRAM for PC went up in Q2 due to the resolved oversupply issues, which positively affected the increased range of sales at SK Hynix, the main product of which is DRAM for the PC.

The actual average price for one of the main products, 4 gigabyte (GB) DRAM for PCs, rose 16% from 26,120 won (US$23.50) in Q1 to 30,288 won (US$27.25) in Q2. Meanwhile, the mobile DRAM price dropped 5-8%. The production of DRAM for PC takes up 30% of the entire DRAM production by SK Hynix.

In addition, the total market sales of DRAM in Q2 turned out to be 9.482 trillion won (US$8.531 billion) which increased 24.2% from that of Q1, which was 7.637 trillion won (US$6.87 billion).

An associate from the industry offered some insight, saying, "SK Hynix's good improvement in its sales performance was largely a reflected benefit of the price increase of DRAM for PC in Q2," and added, "Since the oversupply of DRAM for PC is resolving while the production of DRAM for mobile is rising, SK Hynix will be able to continue its stable growth." BK



## IT EXPORTS

# Prospects Diverge between Semiconductors and Displays

Semiconductor exports are showing positive signs this year while display exports continue to decline. These export trends are forecast to continue after August, leading to wider gaps between the two industries.

According to the export trends report released by the Ministry of Trade, Industry & Energy on August 8, semiconductor export volume up to this July was approximately 34.68 trillion won (US$31.2 billion), which is a 10.4% improvement over the 31.45 trillion won (US$28.3 billion) in the same period last year.

Looking at July alone, the export volume was at 5.34 trillion won (US$4.8 billion), a 21.7% increase over 4.34 trillion won (US$3.9 billion) in July of last year. This is the tenth consecutive month since October that the export volume increased over the same month last year.

With memory semiconductors, increase in smart devices such as mobile phones and tablet PCs have increased demand for DRAM and NAND flash. Higher demand led to higher unit prices, leading the five consecutive months of two-digit y-o-y growth.

In the case of system semiconductors, the high growth rates last year caused negative y-o-y growth in April at -3.3%, and -9.3% in June. However, the general trend is pointed upwards.

Future prospects are also positive.

The world semiconductor market is expected to reenter 4.7% y-o-y growth this year, recovering from 2.3% decline last year.

Furthermore, growth in demand for smart devices is expected to increase from 1% in 1H 2013 to 8% in 2H 2013, leading to better export performance for Korea, a major exporter of semiconductors.

Unlike the semiconductor industry, in which export prospects are looking up, the display industry is still in difficult circumstances.

Display export volume up to this July was at approximately US$17.3 billion, a 2% decline from the US$17.7 billion in a similar period last year.

Looking at July alone, the display export volume was at US$2.36 billion, a 15.1% decline from July of last year. This is the third consecutive month since May that the export volume declined over the same month last year.

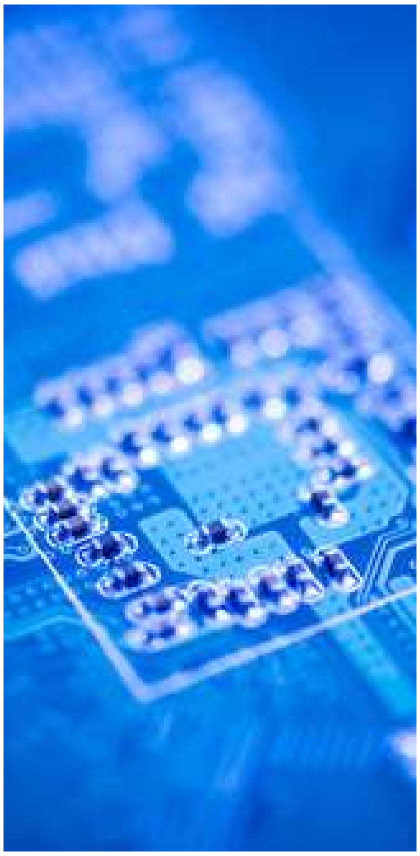
Such contraction in the market can be attributed to stagnation in the TV market, which is the largest source of market demand. Furthermore, LCD panels, which are still a major force in this market, have seen deep price falls, which led to decreased export volume.

In addition, the Chinese government's subsidy policy on power-saving home appliances ended as of May, leading to lowered demand in the Chinese market, which has been a major destination for Korean exports.

Export prospects are also unclear. With the accumulated inventory in the market, panel makers have responded by decreasing equipment investments and adjusting manufacturing rates. However, continued stagnation in panel demand will most likely push the export trend downward for a while.

In particular, demand is focused on small panels for smart devices. Mid and large panels have no significant demand momentum, which will lead to wider export gaps among different panel sizes.

Panel makers are increasing the ratio of open cell products in order to improve profitability, which will further decrease

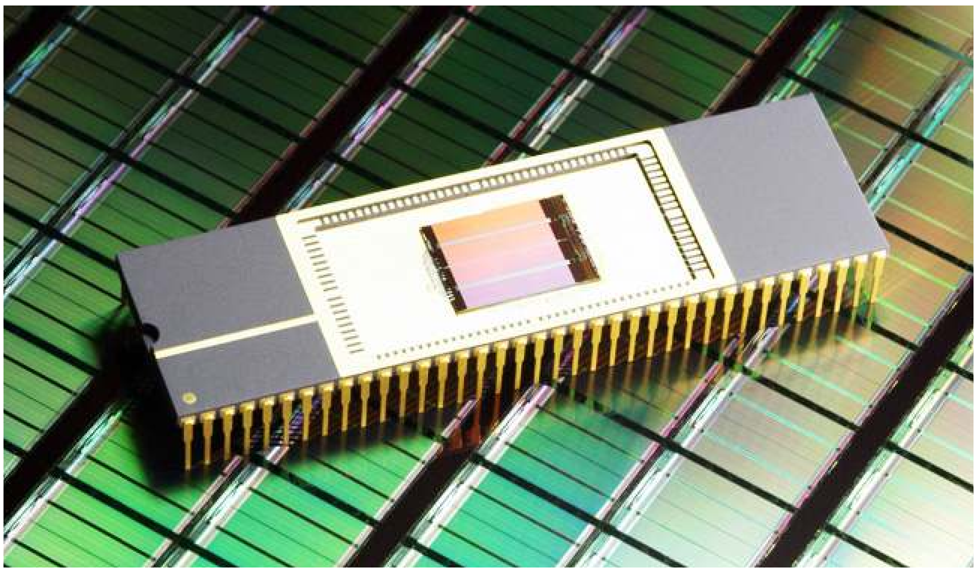


revenue classified as exports. Open cell is a semi-finished product that only combines thin-film transistor (TFT) backplanes, color filters, and display screens to the LCD panel, and excludes parts such as backlight units (BLU) and driver ICs.

"Last year, OLED exports to Korean factories abroad made up for the decline in the LCD market, leading to 5% growth. We initially forecast a growth rate similar to last year, but the worse-than-expected performance so far makes it difficult for us to predict whether we can reach those levels," said Korea Display Industry Association personnel. BK

MEMORY SEMICONDUCTOR INDUSTRY

# Korean, US and Japanese Companies Preparing for New Race



Korean, Japanese and US memory semiconductor manufacturers are regrouping themselves to enter another war.

The Korean companies dominating the global market are continuing to shore up their competitiveness while Micron completed the acquisition of Elpida on July 31 to catch up with Samsung Electronics and SK Hynix. Toshiba, ranking second in the NAND flash industry, has secured cash by selling the post-processing lines in Malaysia and is sharpening its competitive edge in the pre-processing part, too.

According to foreign news reports, Toshiba is going to announce its business plans for the latter half of this year on August 7 in Tokyo. The plan is expected to revolve around the sale of non-key assets and concentration on its main businesses including NAND flash memory production.

The Japanese company sold its shares in Toshiba Semiconductor Wuxi to ASE Assembly & Test in Taiwan in May of this year, and 100% of its shares in Toshiba Electronics Malaysia to Amkor Technology late last month. At the same time, it is increasing its investment in NAND flash manufacturing. It announced a month ago that it would invest 30 billion yen in the construction of facilities for new Fab 5 assembly lines. Though the company is refraining from mentioning the details, experts are predicting that it would invest a total of 400 billion yen with SanDisk.

“We will start the construction of the assembly lines in Yokkaichi from late August this year and the work is scheduled to be completed next summer,” the company said, adding, “Detailed plans regarding the introduction of facilities, date of initial production, capacity, and the like will be dependent on market situations.” The remark implies that it is ready to make an investment whenever market conditions get better. Toshiba and SanDisk have already worked together with each other on Fab 3 and Fab 4, and thus it is highly likely that they will continue their partnership at this time.

In the first quarter of 2013, Samsung Electronics led the global NAND flash market with a market share of 38.5%, and Toshiba followed it at a margin of 6.1 percentage points. The runner up’s aggressive investment plan is regarded as an attempt to overtake the market leader and leave its rivals like Micron and SK Hynix further behind.

Micron, which is vying with SK Hynix for the second spot in the global DRAM market, has wrapped up the acquisition of Elpida in 17 months and is going to hold a briefing session on August 9. The US company is striving to increase its presence in the DRAM market by taking advantage of the acquisition.

According to market research firm iSuppli, Samsung Electronics accounted for 36.4% of the DRAM market in Q1, followed by SK Hynix (25.7%), Elpida (15.1%), and Micron (14.0%). The combined market share of Micron and Elpida reaches 29.1%, 3.4 percentage points higher than that of SK Hynix. Elpida filed for bankruptcy back in February this year and has been unable to make aggressive investment since then. However, it is planning to invest 10 billion yen in its Hiroshima plant sooner or later to make up for the delay and keep up with its competitors.

In the meantime, Samsung Electronics and SK Hynix are expected to invest approximately 13 trillion won and three trillion won in their semiconductor business this year, respectively.

LINE AND KAKAOTALK

# Seen as Threatening the Global Dominance by Facebook and Twitter


Korean IT companies, which have operated locally like a big frog in a small pond, are now heightening their positions in the global mobile market. KaKaoTalk and Line, the leading mobile messengers in the nation, have grown in stature, emerging as competitors to Facebook and Twitter.

According to an official in the IT industry on August 5, Naver is most aggressive among Korean mobile businesses to push into the global market. Naver, separated from Hangame on August 1, changed its company name from NHN to Naver, gearing up for overseas expansion once again.

As Korea's dominant portal, it has already tasted the bitterness of losses in overseas markets. Starting from the establishment of Hangame Japan and Naver Japan in 2000, it acquired the Chinese online gaming portal OURGAME in 2004 and founded NHN USA in July 2005, aiming at the US, Chinese, and Japanese markets based on its power to control the domestic market.

But the number-one web portal in Korea encountered bad results, including the shutdown of its gaming businesses in China in April 2010 and the disposal of NHA USA in December 2011. Afterwards, it was called "a Tiger at home and a Paper Tiger abroad" due to its failure to create a global business model.

But mobile messaging platform Line changed the landscape. Lagging behind KaKaoTalk in Korea, it hit the jackpot by acquiring 200 million users globally, in over 200 nations. Its establishment as a mobile messenger service provider gave a green light to Korean gaming companies' expansion into foreign markets. Around 20 games they developed are now available worldwide through Line.

Meanwhile, KaKaoTalk, which is accelerating the execution of its global strategy targeting Indonesia and Vietnam, passed 100 million global users in July.

Regarding these achievements, foreign press media depicted both Line and KaKaoTalk as emerging powers threatening the dominance of global social networking services such as Facebook and Twitter.

Lately, the efforts for local mobile application program developers to extend overseas business has gained momentum. They are eyeing emerging markets such as India, Norway, and the Netherlands, to say nothing of Japan and the US.

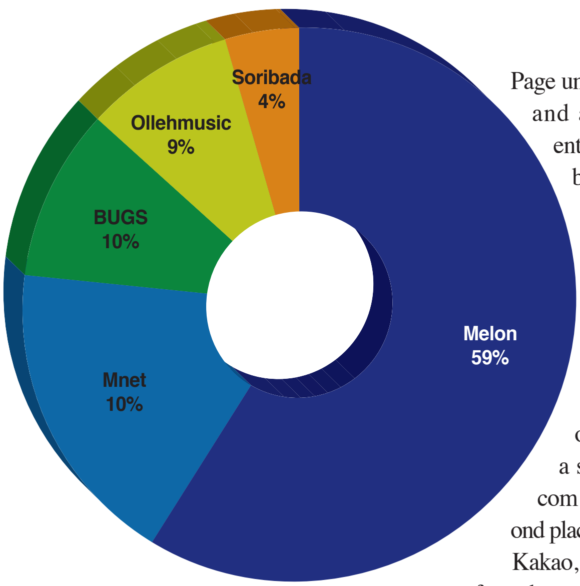
AppDisco, developer of Korea's number one reward-based mobile advertising application AdLatte, is focusing on market expansion in foreign countries such as Vietnam, Taiwan, and Australia. AdLatte was ranked second most popular in the App Store in July only two weeks after it was launched in Vietnam.

The application Flava2.0, where pictures, videos, and recordings can be stored under different themes like childcare, travel, and famous restaurants, is getting attention in India. Meanwhile, PlanB, which was released in October 2012, is also successful in the Dutch market.

Magic Hour, a camera app used to decorate pictures and adjust light and shade, brightness and hues, has been ranked top in the App Store in Norway.

## ONLINE MUSIC MARKET

# A Big Bang Anticipated




Samsung Electronics, Kakao and other large mobile enterprises have challenged Melon, leader of the domestic online music service industry. Also, a global giant Google is targeting the domestic market as well. Big competition between large businesses is anticipated for the domestic music industry.

According to the industry on August 22, Samsung Electronics will work with Soribada and Kakao will work with Neowiz Internet's Bugs to compete in the online music industry.

So far, Samsung Electronics has been negotiating with KT Music to expand its business into the music market, but since the negotiation broke down, it is now contacting Soribada. Unless a major issue arises, Samsung Electronics will most likely provide Soribada's music service by installing it on the Galaxy series.

Kakao has been expanding business into game platforms, mobile contents market Kakao Page, and music services since its huge success of Kakao Talk, with over a hundred million users.

An industry associate said, "Kakao's board of directors have such passion toward the contents business, enough to push Kakao Page until it starts making some results," and added, "With that said, their entrance into the music market will bring a tremendous amount of impact, and must be watched carefully."

"Melon" of SK affiliate LOEN Entertainment is installed as the basic music provider on all SK Telecom telephones, and dominating the online music service industry with a share over 59% by 2012. Mnet.com has a share of 18%, ranking second place in the market.

Kakao, the largest domestic mobile platform, has cooperated with Bugs (with a share of 10%, ranking 3rd) to compete against them. The partnership between Kakao and Bugs has been spoken of since the latter half of last year. The two will finally make some results as soon as possible and start providing domestic services for both Android and iOS.

A Kakao representative said, "With the know-how behind Kakao Talk service, we will provide a distinguished music service best fit for the mobile environment," and added, "We're thinking of ways like making a music app or sending music to friends, etc."

Samsung Electronics have been ahead in the Q2&4 global smartphone sales share by 31.7% (71,380K devices) which is twice more than Apple in second place. However, it had a weak spot of not being able to build a "contents-platform-network-deivce" (CPND) information communication technology (ICT) environment.

An industry associate said, "Google and Apple have a C and P environments with contents and the operating system (OS) as platforms, but Samsung lacked this," and added, "Samsung's effort to release the TIZEN OS and enforce music and other contents can be interpreted as its attempt to build an independent environment."

Samsung Electronics is expected to concentrate on providing music and other content services on its mobile devices for now.

An industry associate said, "Samsung will most likely focus on making things convenient for its mobile device users by providing the contents in a stable manner," and mentioned, "Since Samsung and Kakao are large enterprises when compared to other businesses that have jumped into the industry, we are expecting huge impacts"

The current music providers are cautious about the large enterprises entering the market, and enforcing their partnerships with Melon-SK Telecom, KT Music-KT, and Mnet.com-LG U+.

However, SK's affiliate LOEN Entertainment is selling off, according to the Monopoly Regulation and Fair Trade Act, which means it is difficult to expect Melon to make any changes. Melon has no aggressive plans this year, other than increasing its utility by providing some new services on the website by the end of this year.

Foreign businesses trying to enter the domestic market are also noteworthy. In May, the global giant Google started providing its "Google Play Music All Access" service which allows unlimited music streaming at US$9.99 per month. The market has been expanded to US, Australia, New Zealand, and others. Google is very interested in the Korean market, that at the Seoul Google Mobile Summit last month, Google Play Director of Google Engineering Chris Yerga spoke directly of expanding music services to South Korea. Also, there have been rumors for years that Apple's music service iTunes will enter the domestic market.

The industry estimated the online music market size to be 697 billion won in 2011, 800 billion won this year and over a trillion won by 2015.

IT SERVICE INDUSTRY

# Catching Up with Japanese Solar Energy Market

Komekurayama Solar Power Plant owned and operated by TEPCO in Kofu, Yamanashi Prefecture. Similar power plants will be created all over Japan soon as Mega Solar Projects. (Photo courtesy of Sakaori/ Wikimedia Commons)

Domestic IT service companies are keeping their eyes on the sharp rise of the Japanese solar energy market.

According to sources in the industry on August 18, LG CNS, SK C&C, Hanwha S&C, and other IT service companies are trying to come up with ways to enter the Japanese solar energy market with quick investment expansion.

These companies believe they are ready to develop and create renewable energy solutions, and are reviewing the business value of prospective projects in which they can participate.

The Japanese government is expanding investment in solar energy as a replacement energy source and its next growth engine, since the big earthquake which hit Japan in March 2011 stopped the operation of 51 nuclear power plants and made the country's power supply unstable.

KOTRA predicts the Japanese solar energy market to grow to 22 trillion won (US$19.8 billion), which is 77% higher than last year. From the new facilities, Japan will see an increase of 530 megawatts (MW), which is 2.2 times more than last year.

The particular project that the domestic IT service companies are paying attention to is the "Mega Solar Project." This project, which requires a minimum of 10 billion yen (114 billion won, US$102 million) worth of financial resources, is about producing and providing solar energy via the local government lending the physical location to participating general trading companies, solar battery businesses, constructors, and electric power companies.

Currently, 85 Mega Solar Projects are taking place across Japan and will continue through to the year 2030. Thus, domestic IT service companies such as LG CNS, SK C&C, Hanwha S&C, and others expect that they will be able to play a role in constructing the power system, operation, management, or other items related to the project.

LG CNS has constructed several domestic solar energy plants, as well as internationally in Sri Lanka, Bulgaria, and the Philippines. An LG CNS associate said, "The company has a lot of expertise, as it is the first in the nation with accumulative experience in domestic solar energy plant construction," and added, "It is undergoing pre-business stages, and will participate as soon as an appropriate project comes up."

Hanwha S&C also expects to play a part in the construction, operation, and management roles of the power generating system, since Hanwha Group is actively participating in the Japanese solar energy business. Last year, Hanwha Group bought out the German solar battery module company Q.CELLS. And this year, it plans to expand business by shipping 8 times the solar batteries to Japan that it shipped last year.

SK C&C is also interested in entering the Japanese solar energy market. An SK C&C associate said, "The business operation division has determined the Japanese solar energy business to be meaningful, and continues to watch carefully," and added, "Although it is hard to say that the company will participate in the business right away, it is true that the division is continuously analyzing business value."

A KOTRA associate said, "Domestic IT service companies will most likely participate as a system construction partner," and added, "In order for the companies to successfully enter the market and make any progress in Japan, they must cooperate with Japanese solar panel companies and secure cheap construction expertise first." BK

SAMSUNG, LG

# Is Increase of Sales Credit and Stock Push-driven?



Samsung Electronics and LG Electronics saw a 10% increase in their sale credits in the first half of the year, compared to the same period last year. Samsung's credit went over 27 trillion won (US$24.1 billion) and LG's broke 8 trillion won (US$7.16 billion) for the first time. As for stock assets, Samsung has 20 trillion won (US$17.9 billion) and LG has 5.5 trillion won (US$4.9 billion).

An increase of sale credit means "products were sold but payments were not collected," and an increase in stock assets means "products were made but not sold."

An increase in both the sale credit and the stock asset is not good for the company's financial management. However, the time lag between the sale credit and purchase liabilities, as well as the amount of stock prior to sales, is a very natural trend for a growing company. Experts point out that cash flow and business profit development should be the focus.

Some have suspected the increase in sale credit and stock assets as a "push-driven effect," but experts advised that the internal situation must be carefully examined. It is natural for sale credit and stock assets to increase if sales increase. The period of the increase is important. Depending on whether or not the increase happens during an economic recession or recovery, the interpretation can be different.

According to the first half year report submitted to the Financial Supervisory Service, sale credit for Samsung Electronics increased 3.2467 trillion won (US$2.9058 billion) to a total of 27.1079 trillion won (US$24.2616 billion). Its stock assets increased 3.8143 trillion won (US$3.4138 billion) to a total of 21.5618 trillion won (US$19.2978 billion). This is the first time the company has broke 20 trillion won (US$18.9 billion).

Over the same period, LG Electronics' sale credit increased 1.3 trillion won (US$1.2 billion) to a total of 8.621 trillion won (US$7.716 billion). Its stock asset increased 450 billion won (US$402 million) to a total of 5.524 trillion won (US$4.944 billion). Both Samsung and LG saw these increases as their sales increased. A LG Electronics representative explained, "When sales increase, sale credit and stock assets naturally increase too." In other words, it's not a "push-driven effect" as some suspect.

The receivables turnover (sales/average sale credit) showing the stability of sale credit also supports this explanation. For the past 3-4 years, Samsung's turnover was 7.5-8.4 times, and LG about 7.4-7.8 times. This can be interpreted as Samsung Electronics needing 43-47 days and LG 46-48 in order to retrieve sale credits, which is relatively stable.

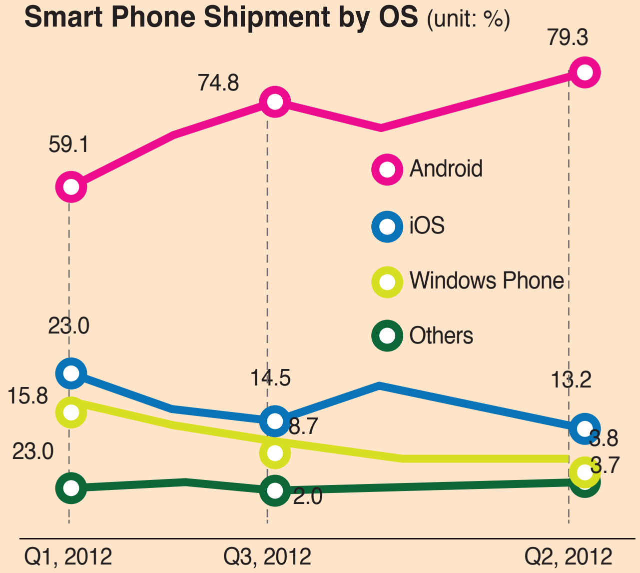
Another important mark in a company's management is the cash flow through sales. This shows the company's ability to create cash for investment and distribution. The cash flow of Samsung Electronics through sales in the first half of this year was 21.4179 trillion won (US$19.1690 billion), and the investment cash flow (tangible and intangible) was 20.859 trillion won (US$18.6688 billion). There is 560 billion won (US$501 million) left even after tangible and intangible investments of sales cash. The sales cash flow from the first half of last year was stable at 14.3587 trillion won (US$12.8510 billion), and investment cash flow too at 10.5972 trillion won (US$9.4845 billion).

Last year, LG Electronics had 1.84 trillion won (US$1.6468 billion) in sales cash flow and 480.5 billion won (US$430.0 million) in investment cash flow. The company was able to invest with its sales profits. But in the first half of this year, the company had 943.1 billion won (US$844.0 million) in sales cash flow when its investment cash flow was 1.3165 trillion won (US$1.1783 billion). In other words, the company was about 373.4 billion won (US$334.2 million) short to invest in cash through sales profits. This is why, toward the end of last month, LG Electronics issued 400 billion won (US$358 million) in corporate bonds to create cash flow through financial activities. BK

SYMBIOSIS OF GOOGLE, SAMSUNG, LG

# "Google May Betray Samsung and LG Electronics Soon"

**Smart Phone Shipment by OS** (unit: %)




<Source: IDC>

It has been pointed out that Google, which has helped Samsung and LG Electronics stand up to Apple, can be the biggest threat to the manufacturers once it sets out to dominate the global mobile market building on the dominance of the Android operating system.

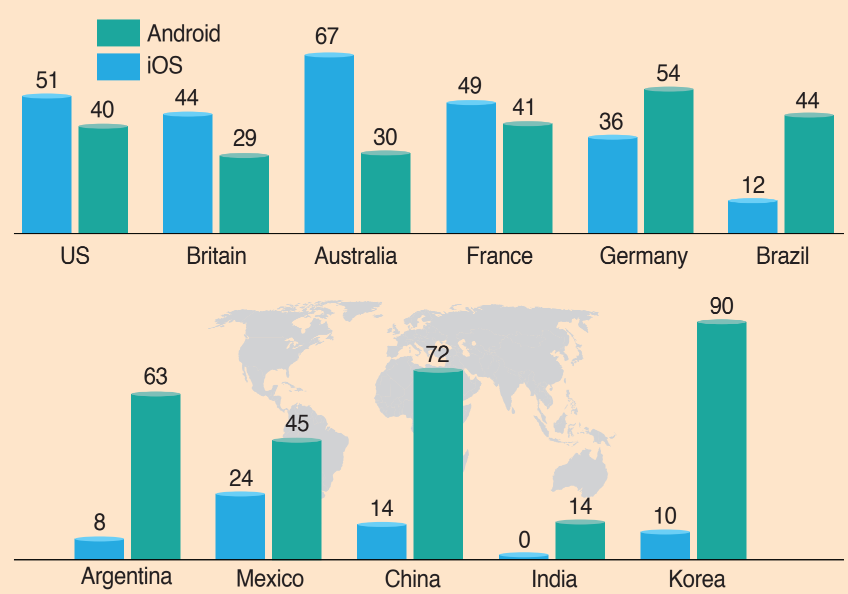
LG Economic Research Institute researcher Seo Ki-man published a report on August 20, warning that the Korean companies cannot rely on the good faith of the dominant force in the industry for good. "The honeymoon between Google and the Korean companies is drawing to a close," he said in the report titled "The Increasing Presence of the Android OS in the Mobile Market Portends the Google World."

His theory starts from the fact that the market share of the Android OS is overwhelming. No less than about 80% of the smart phones released worldwide in the first half of this year employ the operating system. In other words, it has already beaten its rival Apple to conquer the global market. "The Android's gaining control of the mobile platform industry means that Google can wield great influence on the global mobile sector in its entirety," the researcher continued, adding, "Korean firms need to provide against it."

These days, the mobile market of the world is characterized by various services, contents and devices being closely interlinked with one another unlike in the past when PCs were run on different operating systems. If Google makes use of its dominance to act as not just an OS provider but the reference of the development of applications and mobile devices, its grip on the entire market could go out of control. There is no doubt that Samsung and LG Electronics have made a significant contribution to Google and the Android's rapid growth but it is also sure that their cooperative relations are coming to a close.

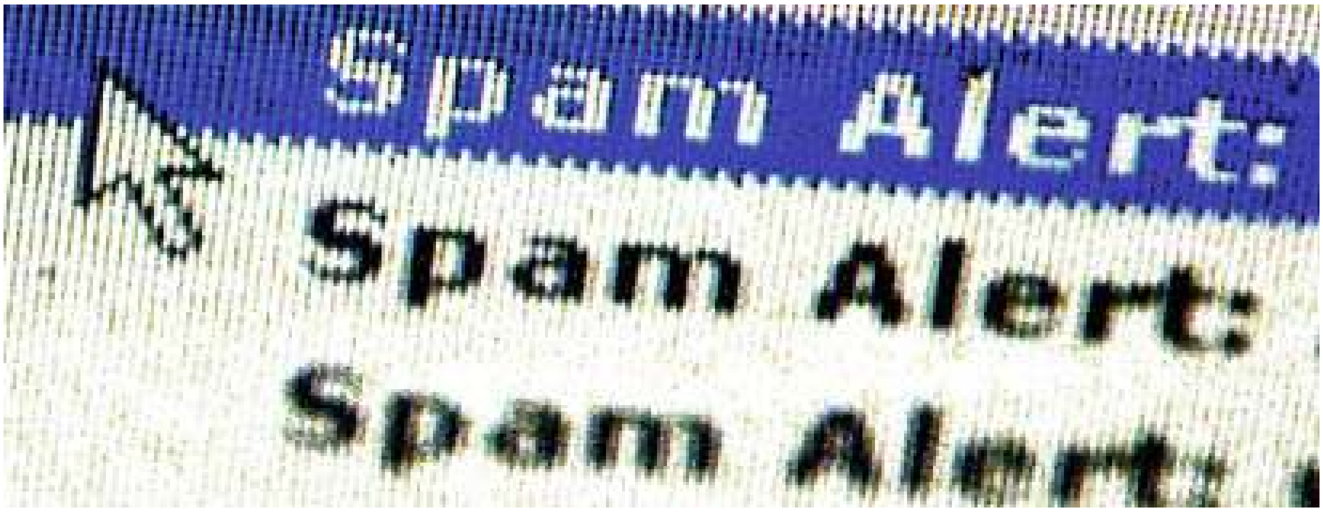
"Samsung is not an innovator but a fast follower," international credit rating agency Fitch said recently. A variety of challenges are on the horizon for Korean companies, including the counterattack by Apple and Nokia, Google's betrayal against them after its acquisition of Motorola, Amazon's business expansion into the smart phone market and Chinese manufacturers' enhancement of innovation capabilities. BK

**2013 Market Share of Android and iOS by Country Based on Web Access**



"SPAM REPUBLIC"

# Korea Wins the Disgraceful Title




"Two years from now, spam will be solved. The developments in information technology will result in a solution that accurately identifies the sender of the spam," said Bill Gates at the 2004 World Economic Forum in Davos. He asserted that spam would be a thing of the past. However, ten years after his remarks, spam continues to thrive both as a terrible headache and a prosperous business.

Spam mails are the pollution of the digital era and they continue to invade our society. A few years ago, spam mails were typically straight-forward advertisements. Now they have evolved into more intelligent and elusive forms of phishing, pharming, vishing, and smishing. Spam is no longer just a minor inconvenience in daily life. It has become a breeding ground for various forms of criminal activity. Without resolving this problem, Korea's proud title of "IT Power" will ultimately falter.

Last April, global IT security vendor Kaspersky Lab released a spam report that showed that Korea accounts for 13.7% of world spam, only after the United States (16.9%) and China (14.4%). In Europe, 50.9% of spam originates from Korea. This means the amount of spam originating from Korea has recently rebounded from a period of decline. Critics point out that at this rate, Korea will not only lead in high-speed Internet and smartphone distribution, but also in the distribution of spam.

"Professional spammers continue to thrive, because they are profitable even if only a very small portion of their recipients respond to the campaign," said Oh Chi-young, CEO of Jiransoft. "Spam filters are becoming more sophisticated, but spam mails are also becoming more intelligent," he added.

In 2H 2012, an average cellphone holder received 0.22 spam messages a day, according to the Korea Communications Commission. This is a slight decline from 0.26 messages during the similar period of the previous year. However, 'malignant spam' regarding loans (24.8%), gambling (22.4%), and adult content (18.6%) persisted as a serious problem in the majority of spam messages.

Looking at the source of spam messages, 55.1% of all spam traced back to bulk messaging services operated by telecommunication companies. Web messaging services and direct messaging via cellphones only accounted for 24.1% and 12.0% of spam, respectively. This shows that the majority of spammers are sending out messages legally, under contract with telecommunication companies. Critics point out that, in effect, telecommunications companies are overlooking spam activities via bulk messaging services in order to protect their own revenue stream.

Consumer behavior in response to spam is also a significant problem. In 2H 2012, 66.7% of KT users and 56.8% of SK Telecom users were subscribed to a spam filter service. Only 8.3% of LG U+ users were subscribed. This means that approximately half of the Korean population does not use any spam filter services. This measurement follows a policy change at the end of last year that required new users to subscribe to a spam filter service, which implies the subscription rate is even lower among older users.

KOREA DISPLAY INDUSTRY

# How to Fight against Taiwan's Offensive to UHD Market?

Amid the dominance of Chinese and Taiwanese companies in the ultra high definition (UHD) market with low-priced UHD panels, the Korean display industry has decided to fight back.

It is too early to feel a sense of crisis, since the UHD LCD market accounts for only 1% of the global flat-panel TV market, judging by shipments. But their accomplishments require special attention, considering their growth in the future. In particular, the market of super-large-sized UHD displays is highly profitable, as it is the only market that has not been affected by LCD panel oversupply.

According to an official in the display industry, on August 6 Samsung and LG Display made a decision to release various types of UHD panels to meet customer need for different panel sizes and specifications in the premium display market.

Samsung Display will mass-produce 98-inch displays as early as this year to consolidate its position as the largest UHD LCD panel maker in Korea. The decision is based on its opinion that the UHD market is growing faster than expected, despite its continued production of 85 & 65 inch panels. It is also planning to unveil UHD displays in the 70-ish inch range that can diversify the premium market.

In spite of BOE's production of 110-inch UHDLCD panels, most Chinese and Taiwanese products compete with existing full HD LCD panels with similar sizes while specializing in products in the range of 39, 40, 50, and 60 inches.

Samsung Display is trying hard to take over the expensive super-sized display market because of excellent profits.

Meanwhile, LG Display is examining strategies to raise the medium-large-sized UHD market currently dominated by Chinese and Taiwanese display manufacturers to a premium market. LG, a mass-producer of 84-inch and 65-55-inch panels, is expected to strive to popularize their products by diversifying their specifications. Specifically, the firm is reported to be targeting medium and high-priced panels, since 55-inch and 65-inch panels, in particular, have much higher definition than full HD, and are less expensive. It has recently revealed that the company will strive to lead the market by putting both high-end products and those for the general public on the market. The panel maker is expected to differentiate their goods by maintaining the true quality of HD LCD panels while popularizing their products by downgrading some of the specifications.

According to display market research firm DisplaySearch, it is estimated that the shipment volume of UHD3840 x 2160 resolution panels in the last quarter is 54,000. The number is projected to reach 1 million in Q3 and 1.5 million in Q4.

"Korean companies first started to mass-produce UHD displays to preoccupy the premium market. But they appear to be reviewing strategies since panel manufacturers from Taiwan have begun to take the lead with low-priced goods. At the end of the day, a fast expansion of the premium market is the key," said an official in the LCD industry. BK

## GLOBAL OLED MATERIAL MARKET

# Projected to Grow Rapidly Due to Large OLED Panels

As an increase in demand for high-definition and high resolution televisions is boosting the supply of large organic light-emitting diode (OLED) panels, materials and equipment markets for OLED panels are expected to grow rapidly.

According to Seoul-based market research institute UBI Research on August 20, the market for the global active-matrix organic light-emitting diode (AMOLED) panels in 2003 is projected to reach 10 trillion won (US$8.963 billion) in revenues in 2013. And smartphone panels are expected to account for 73% of the entire panel market.

But it is predicted that the importance of smartphone panels will gradually decline as Phablet (Phone + Tablet) and TV panels are forecast to represent increased share in the market in 2014. It is estimated that Phablet panels, which is projected to make up 26% this year, will capture 48% of panel markets, and TV panels with 9%. With those market shares increasing, smartphone panels are expected to comprise only 43%.

In 2017, whereas smartphone display panels are projected to constitute merely 22%, Phablet and TV panels are expected to grow 28% and 30% respectively. It means that the market share of large panels is estimated to exceed 50%.

Due to the market growth of big OLED displays, the OLED market is likely to grow rapidly. It is projected to reach US$15.217 billion in revenues in 2014 and US$56.649 billion in 2017. It indicates that large panels are dominating the market, and forecast to grow fast. Accordingly, materials and equipment markets for OLED panels are predicted to grow in tandem.

Thanks to increasing demand for larger OLED TV panels, the OLED lighting materials market is projected to expand fast. According to DisplaySearch, a leading global market research and consulting firm, the global OLED market is projected to enjoy about 67% growth each year until 2017.

It seems that the market for OLED materials used for emissive and conductive layers will reach US$53 million in revenues in 2013, and US$3.4 billion in 2017.

Currently, OLED material revenues almost entirely come from sales of materials for mobile phones. And yet, as the OLED TV market share is increasing rapidly, it appears that OLED TVs will represent most of the OLED material market growth.

In 2014, it is predicted that big OLED TV panels will make up just 10% of the all OLED panel market in shipments, but 17% in the OLED material industry. Starting in 2016, the OLED material market growth will derive from big display sales as the materials market for mobile phones will diminish in revenues.

Jimmy Kim, a senior fellow at DisplaySearch, said, "Owing to big OLED TV panels, the OLED display market will expand rapidly until 2017. It will lead a rapid growth of the OLED material market."

As OLED displays that are mainly used in smartphones are showing signs of their use in TVs and Tablet PCs as well, the increased utilization of OLED displays are likely to guide the growth of equipment markets for OLED panels.

What is noticeable is that Samsung Electronics is giving consumers 34% off the price of curved 55" Full-HD OLED TVs in order to make its large OLED TV panels more popular. As large OLED panels gain popularity, the big OLED panel market is expected to grow faster. As a result, a demand for equipment that is used for mass-producing OLED displays in order to additionally reduce the cost is expected to increase greatly.

Amid predictions that production yield can go up fast owing to the technological improvement of mass-producing OLED displays, it appears that big OLED panels that are now manufactured in small quantities in a pilot line are expected to be mass-produced earlier than expected.

It is highly probable that the mass-production of OLED panels, which have been mainly produced by Korean companies such as Samsung and LG Display, will be made by firms in Chinese-speaking countries, including Chinese panel producer BOE Display and Taiwanese AU Optronics (AOU). Hence, the prospects for companies engaged in equipment business look rosy.

An industry source said, "As competition intensifies among display makers in a bid to gain competitive advantages in the field of big and flexible OLED panels, a demand for OLED display manufacturing equipment are more likely to increase fast. Starting next year, the increased demand will be shown thorough improved performance.

SECONDARY BATTERIES VS. FUEL CELLS

# Korea, Japan Compete for Market Dominance

Fuel cells as small as your thumb may soon power your smartphone, such as this one exhibited by UK-based Intelligent Energy at Barcelona's Mobile World Congress in March of this year.

Japanese companies, which were outrun by Korea in the secondary battery industry, emerged as strong global leaders in the fuel cell industry. Fuel cells are expected to be a next-generation energy source. While Korea makes its way ahead of Japan in the small secondary batteries used for cellphones and mid-to-large size secondary batteries used for electronic vehicles, Japan outran Korea in the industry of fuel cells.

On August 14, Patent Result of Japan analyzed the competitiveness of fuel cell patents registered in the US and found Japanese automobile and electronic industries to be ranked 2nd to 4th. Fuel cells are expected to replace secondary batteries as the next energy source that converts chemical energy directly to electrical energy.

Patent Result Company is a global business that analyzes patent amounts and quality. About 15,939 cases of fuel-cell-related patents registered publicly in the US Patent Office since 1980 to May 2013 were included in this analysis.

Conclusively, US-based GM took first place. GM owns 892 patents and showed great quality in its patents. In fact, GM is known to be the most active in fuel cell research and development (R&D).

Japan wiped out 2nd through 4th places. Toyota Automobile came in at 2nd place, Honda in 3rd, and Panasonic in 4th. Especially, Toyota in 2nd place is showing great potential in the fuel cell industry by being very close to catching up with GM in 1st. It continues to actively register patents, slowly dominating the market not only with Japanese automobile companies but also electronics companies.

Just one company from Korea, Samsung SDI, ranked 5th place. Samsung SDI recently began to register fuel cell-related patents in the US Patent Office. One could say that Samsung is trying to outrun Japan in fuel cells by taking over patents through large scale R&D in order to prevent Japanese automobile and electronic companies from succeeding in the market.

A Samsung SDI associate said, "Korea is ahead of Japan in the small and mid-to-large size secondary battery industry," and added, "Korea is also researching the fuel cell industry, but Japan seems to be ahead of the industry."

Another industry representative said, "It is noteworthy that not only electronic companies but also automobile companies are trying to register fuel cell patents in Japan," and added, "It is hard to determine when the fuel cell market will be fully established, but Japan is already fiercely developing and dominating the technologies related to it." BK

**Patent Ranking, Public Patents Registered in US Patent Office**

| Rank | Company | Total Patents | Total Applied |
|---|---|---|---|
| 1st | General Motors | 2,596 | 892 |
| 2nd | Toyota | 2,457 | 972 |
| 3rd | Honda | 2,391 | 873 |
| 4th | Panasonic | 1,787 | 533 |
| 5th | Samsung SDI | 1,521 | 598 |

LS CABLE & SYSTEM

# World Class Technology and Expertise Acknowledged


LS Cable & System is highly rated for its exceptional technical skills and expertise.

LS Cable & System, a leading Korean wire and cable manufacturer, announced on July 15 that it won a 14.5 billion won (US$13 million) contract to provide 230kV-level extra-high-voltage underground cables and connectors to US-based Southern Maryland Electric Cooperative (SMECO). The cables and connectors will be utilized for the construction of a new power transmission network to cope with the increased power demand in Southern Maryland.

What is notable is that the project involves building extra-high-voltage cables under the Patuxent Riveras that are 1.5 kilometers long. Given that extra-high-voltage underground cables are usually connected in 500m units due to productivity and management problems, this project requires not only the capacity to produce 1.5km worth of 230kV level cables without joints, but also excellent skills and expertise in all areas of the cable business from transportation and installation to the construction of electrical grids. The Korea-based company was reported to be highly rated for its exceptional technical skills and expertise to the extent that last year it was the first Korean industry to win a project for 225kV cables from Electricité de France (FDF) while maintaining its top position in the Middle East extra-high-voltage cable market for several years.

Since the existing electrical grid in the US was built in the 1960s and 1970s, demands to replace an outdated electrical grid and handle increased electricity consumption are on the rise. Moreover, underground cables are now preferred by land owners on account of their low impact on the environment and safety compared to aerial cables, which require electric poles.

In the US, there are approximately 3,500 companies engaged in electricity generation, transmission, and distribution at the moment. As of late 2011, US power generation capacity is 1,072 gigawatts, which makes the nation the world's number 1 in power generation and consumption. The country now focuses on constructing new power grids so that 20% of US electricity demand can be met with renewable energy sources by 2030.

Overseas Energy Sales Division Head Lee Heon-sang said, "This deal is significant in that LS Cable & System won the contract in competition with major cable industries in Europe and Japan based on its excellence in extra-high-voltage cable products and its world-class expertise in successful implementation of projects," adding, "LS Cable & System is planning to conduct an active marketing campaign targeting electricity providers and engineering, procurement, & construction (EPC) companies in each state of the US." BK

KOREAN AUTO INDUSTRY

# In Trouble Owing to Strikes and Shorter Working Hours

There is a crisis in the Korean automobile industry. Hyundai and Kia's labor unions, criticized as labor aristocrats, are scheduled to stage a strike starting from August 20. To add insult to injury, it is certain that the amended Labor Standards Act, which focuses on a reduction in working hours, will be passed when the National Assembly opens a regular session in September. Against this backdrop, there is growing concern that the competitive advantages in the industry will weaken further.

Automobiles bound for overseas markets are waiting for shipment at the international auto pier of Pyeongtaek-Dangjin Port.

According to sources in political circles on August 19, secretaries of the Environment and Labor Committee of the National Assembly from the ruling and opposition parties agreed to pass the Labor Standards Amendments in the National Assembly in September. The amendments were created in an attempt to improve the quality of life for workers and to create new jobs by reducing weekly maximum working hours from 68 to 52 hours. But the Korea Employers Federation (KEF) and the auto industry are greatly worried about the production environment after the implementation of the law.

According to the Korea Automobile Manufacturers Association (KAMA) and KEF, it is estimated that annual auto production will be reduced by 500,000 units in the event that maximum working hours per week is shortened. It means an output loss of 10.8%, given that 4,657,000 vehicles were produced in 2011. In terms of money, this amounts to more than 10 trillion won (US$8.95 billion) in losses. Therefore, KAMA and KEF fear that it will disrupt both domestic and international sales.

Shorter working hours would deal a serious blow to the automobile industry because the business inevitably involves long working hours. An industry source said, "The average work hours are 52 per week. And yet, when there are a lot of orders, people often work for over 60 hours. So, the amendments will be bound to have a negative effect on the auto sector."

Another source pointed out, "The real victim is not global companies such as Hyundai and Kia Motors but their small to medium-sized subcontractors, which manufacture auto parts," adding, "A lot of small businesses are already struggling with labor shortages. How will they be able to hire people and meet production orders while observing the statutory weekly hours limit at the same time? It makes no sense."

According to a report on working restrictions during the holidays and relevant policy issues for auto parts makers by Lee Jong-wook, professor of economics at Seoul Women's University, it is estimated that the productivity of auto parts manufactures will be reduced by approximately 10% as a result of the measure.

Professor Lee remarked, "The sudden introduction of limits to work on a holidays will lead to a vicious circle of a reduction in production, reduced wages, and ultimately a high job turnover rate. Accordingly, auto parts makers will be in danger of going bankrupt."

There is a general consensus that although political circles stepped in to tackle the issue of working long hours, they did not present ways to cope with the resultant effects.

Many analysts argue that overtime rates and wage rates for public holidays should be lowered, before shortening working hours by law. In fact, the Korean Labor Standards Act stipulates that when working overtime, works should receive 150% of ordinary wages, which is twice the rate of Japan, Germany and Italy. The International Labor Organization (ILO) also only recommends 125% of normal pay.

A KEF official noted, "Since the hourly rate of overtime pay is too high compared to advanced countries, workers prefer working overtime, which is one of the reasons for the common practice of working long hours. Lowering overtime rates is more pressing than implementing a law that forcibly decreases working hours."

A lot of experts think that adjustment in overtime rates is essential, since companies will face increasing pressure for additional payment if an agreement is reached to include bonuses and benefits with ordinary wages in the future. BK

HYUNDAI MOBIS

# Celebrating One Millionth Chrysler Module

## Providing Modules for Jeep Wrangler, Jeep Grand Cherokee, and Dodge Durango

On May 17, Hyundai MOBIS produced its one millionth complete chassis module for Chrysler, which it started doing in 2006. Chrysler is one of the Big Three automobile production companies in the US.

On May 28, Hyundai MOBIS and Chrysler announced that they had held a celebration of the one millionth Chrysler complete chassis module at the Hyundai MOBIS module manufacturing factory in Ohio, US (MNA-OH) the previous day.

At the event, Hyundai MOBIS' Head of the Foreign Operations Division Lee Joon-hyung, Head of Chrysler Toledo manufacturer Zachary Leroux, Regional Representative of United Automobile Workers Bruce Baumhower, and other major associates came to watch the Hyundai MOBIS Ohio factory introduction video and share congratulatory messages.

The complete chassis module is the skeletal body of the automobile with the engine, transmission, brakes, and steering, added. This module makes up about 50% of the complete vehicle. Chrysler receives these modules from Hyundai MOBIS and thereby reduces the assembly process and production cost while improving overall quality.

The fact that Hyundai MOBIS produced one million modules for Chrysler Jeep Wrangler is proof that these modules are globally competitive. Additional positive impacts are expected, since the entire module, rather than singular parts, has been proven qualified for international complete vehicle brands.

Hyundai MOBIS Head of Foreign Operations Division Lee Joon-hyung (center right), Head of Chrysler Toledo Manufacturer Zachary Leroux (center left), and others at the one millionth Chrysler complete chassis module supply party at the Hyundai MOBIS module manufacturing factory in Toledo, Ohio (MNA-OH) on August 27 (US time).Hyundai MOBIS Head of Foreign Operations Division Lee Joon-hyung (center right), Head of Chrysler Toledo Manufacturer Zachary Leroux (center left), and others at the one millionth Chrysler complete chassis module supply party at the Hyundai MOBIS module manufacturing factory in Toledo, Ohio (MNA-OH) on August 27 (US time).

The Hyundai MOBIS production line of complete chassis modules for the Jeep Wrangler at the Hyundai MOBIS Toledo module manufacturing factory.

Hyundai MOBIS North American Division Director Park Jin-woo said, "The North American corporate body has exclusive expertise on module production and an Americanized management system to meet the high standards of Chrysler," and added, "Since 2006, Hyundai MOBIS has been in a strong partnership with Chrysler, and this is what led to the successful production of one million modules."

Hyundai MOBIS provides complete chassis modules for vehicles like the Chrysler Jeep Wrangler, Grand Cherokee, and the Dodge Durango through its manufacturing factories in Ohio (MNA-OH) and Michigan (MNA-MI). Annual production reaches 520 thousand.

The Ohio factory, built in 2006 to provide modules to Chrysler, is actually the first global brand supply module manufacturing facility other than for Hyundai Kia Automobiles. Here, complete chassis modules for Chrysler's main vehicle model, the Jeep Wrangler, are produced.

In addition, a Michigan factory was built in 2010 to produce front and rear chassis modules for the Chrysler Grand Cherokee and the Dodge Durango. This factory is the second Chrysler module production factory built, based on the high quality module production ability and technical skills shown at the Hyundai MOBIS Toledo module factory.

Hyundai MOBIS has recently begun concentrating on gaining competition in the new growth power sector by enforcing the global competitiveness of its original high tech module and core parts production, as well as developing new technology applicable to eco-friendly vehicles and intelligent future safety vehicles. Hyundai MOBIS plans on increasing its foreign complete vehicle maker export proportion in the total sales from the current 10% to 20% by 2020.

## AUTO ELECTRONICS

# Crossover between Industries Increasing

"It is just a matter of time before Hyundai Motor Company (HMC) makes secondary rechargeable batteries [electric vehicle batteries] and Samsung Group, SK Group, and LG Corporation manufacture electric cars."

"With automobiles outfitted with electronic equipment, those four companies are already producing auto parts for electronic equipment," said an industry source on August 18.

As the source said, the phenomenon where electronics makers and auto manufacturers enter each other's business is accelerating in Korea.

Samsung, HMC, SK, and LG are in intense competition over the sector of the auto components industry that specializes in electronic equipment. It means that even though only Hyundai fully builds cars, all of them are major players in the field.

Among them, Hyundai Motor Company is in an advantageous position. Although the company does not make electronic products per se, its greatest strength is in its technical expertise in the auto industry. HMC's auto components for electronic equipment are produced at Hyundai MOBIS, KEFICO, and AUTRON.

To get a foot in the door, the KEFICO Corporation, which was jointly established by the Bosch Group, became a wholly owned subsidiary of HMC. And Hyundai AUTRON was founded for the technical development of semiconductors in vehicles and electronic control units. According to an analysis of KDB Daewoo Securities, KEFICO is in charge of the production of power trains, MOBIS with brakes, suspension and steering, and AUTRON with software and semiconductors.

According to the Data Analysis, Retrieval, and Transfer System (DART), Hyundai MOBIS and KEFICO invested approximately 400 billion won (US$356.8 million) in R&D. Since HMC is planning to focus on the development of eco-friendly vehicles, its project of auto parts for electronic equipment is likely to accelerate.

Samsung Group has also bolstered its business in the field, after selecting secondary batteries as its next-generation business in 2009. What is striking is that more projects are done under the radar.

The Group's disclosed auto parts are Samsung SDI's mid-large sized secondary cells, Samsung Electro-Mechanics' precision motors, and Samsung Total's materials for vehicle weight reduction. The group is rumored to be expanding its items very soon, because it is undertaking research on various kinds of auto components for electronic equipment led by Samsung Electronics, a major subsidiary of Samsung Group, as well as the Samsung Advanced Institute of Technology (SAIT).

LG Corporation's moves are noticeable as well. Amid LG Chem's early participation in the business of secondary batteries, LG Electronics has also entered the vehicle components business. The prime example is LG's establishment of a new Vehicle Components division that combined component-related business units in July. In addition, the group showed its determination to expand business by building an R&D center in Incheon designed specifically for automotive components. Furthermore, LG Innotek, which holds the technology of an intelligent headlight system, is stepping up its auto components business. Thus, the scope of LG's auto parts business is expected to grow from secondary cells to headlamps, auto components for infotainment, motors for electric cars, and compressors.

Finally, SK Group is also active in this business. SK innovation is accelerating in the development of secondary batteries. Despite its belated entry into the market, its partnership with a global vehicle components business sparked anticipation that SK will expand its business. Moreover, SK telecom is creating synergy between subsidiaries by engaging in the field of auto parts.

An official at the Korean Institute for Industrial Economics and Trade (KIET) said, "Profitability and synergy can be made possible only if companies that manufacture auto components for electronic equipment include fully-built car parts," adding, "The example is that Google is developing automated electric cars in partnership with a company with expertise."

The KIET official continued by saying, "Hyundai Motor Company has been involved in R&D for secondary batteries for a long time, while other groups such as Samsung, SK, and LG have been examining numerous possibilities for making electric cars including a joint venture." It indicates that those four groups moving into the industry is highly likely. BK

Google's Lexus RX450h driverless car - a sign of things to come.
(Photo courtesy Mariordo/Wikimedia Commons)

## CAR CRASH TESTS

# Do Hyundai and Kia Really Use Inferior Steel Plates?

Korean consumers are casting doubts on the result of the crash test concerning the Hyundai Elantra.

Recently, the model won the highest grade in the crash test by the Insurance Institute for Highway Safety (IIHS), in which the vehicle collided with a wall at 40 miles per hour. Of the 12 cars of similar size subjected to the test, the Elantra was picked as the safest one.

Earlier back in December 2011, the Elantra was selected as the safest car by the IIHS, too. However, the vehicle safety test conducted in the same year by the National Highway Traffic Safety Administration (NHTSA) yielded an opposite result. At that time, the Hyundai Elantra recorded the lowest score, whereas the Chevrolet Cruze fared best in the head-on collision and rollover tests.

These days, Hyundai's vehicles are considered by not a few customers to use steel plates weaker than those used in the cars of its competitors like GM Korea, Renault Samsung, and Ssangyong Motors. Some of them are even criticizing it as employing different steel sheets in the cars sold in the domestic market and those shipped overseas. Even though Hyundai has officially announced that there is no difference at all between them, the controversy still remains.

Consumers are doubting the result of the IIHS test based on the weight of the Elantra and the Cruze. The former weighs 1,190kg, 165kg lighter than the latter. Also, they are sharing car accident photos in online communities to express their distrust of the cars manufactured by Hyundai, claiming that its vehicles are damaged more in the same accident since they use weaker steel plates.

"They are absolutely misguided when it comes to the safety of our vehicles," said the auto manufacturer, adding, "They tend to judge the safety based only on how much a car is crushed in an accident, but that is not the only yardstick." It continued, "Instead, they should focus on how much shock the car absorbs to protect the passengers; that is, a little crash does not necessarily mean that the vehicle fails to absorb the impact, and it is wrong to determine the safety based solely on the weight of a vehicle."

Then, what is the stance of GM Korea, which is producing vehicles much heavier than those of Hyundai? The company explained, "The safety of a car cannot be determined by the degree of the crash, but it depends on the shock absorption technology." In short, it shares the same stance with Hyundai. It added, "Of course, the thickness of the steel plates and the weight of the vehicle have to do with how safe the car is, but it is not scientific to make an evaluation with only a few of these factors."

If it is so, why does GM Korea manufacture heavier cars? The company changed its note slightly, "The difference in the weight is caused by many reasons, such as the plating method and the ratio of the sheets, but it is true that we make heavier cars for the sake of passenger safety."


**The Hyundai Elantra was awarded the maximum five-star safety rating after being tested by the Australasian New Car Assessment Program (ANCAP), pictured above.**

## HYUNDAI MOTOR'S TRADE UNION

# What Good Can Come Out of the Strike?

Hyundai Motor Group headquarters buildings located in Seoul, South Korea. (Photo courtesy of Chu/Wikimedia Commons)

After Hyundai Motor workers vote to authorize a strike against their company, concerns arise over the weakening of overall competitiveness in the Korean motor industry. Furthermore, as the management looks into extraordinary countermeasures of increasing production abroad, critics point out that the union is driving out employment overseas. This could lead to contraction in the Korean motor industry, ultimately resulting in job insecurity and lowered wages.

"Among the 46,027 members, 40,537 participated in the vote, and 32,595 (80.4%) voted for a strike, authorizing it," announced the union through its newsletter on August 14. "We will fight for, and win, the '4.4.5 Key Demands' through this strike. The company must show its willingness to accept the union members' demands by August 19," it added.

The union's demands include several sections that are tough to accept. Profit sharing of 30% of Hyundai Motor's net profits and monetary support of 10 million won for the children of employees who could not matriculate to college are some such demands. Hyundai Motor analyzes that accepting such demands will lift the average wage per worker to over 100 million won (US$89,400), posing a serious threat to the company's overall competitiveness. Progressive increase in severance pay, extending the retirement age to 61, and exemption of criminal and civil responsibility regarding union activities are some of the other demands that cannot be accepted by the company, as they go against government policies and the legal system.

In effect, it is realistically unlikely that the company's response will satisfy the union's demands by August 19. The union will have no choice but to uphold its decision and proceed with the strike.

Productivity in Korea is markedly lower than its foreign counterparts

While the union is making unrealistic demands for their rights, their productivity is failing.

The Line of Balance (LOB) at Hyundai Motor's Korean factories, a key productivity metric, remains around 53.4%. This means that a hundred workers are only doing the work of 53.4 workers. US factories have a LOB of 91.6%, approximately 1.7 times that of Korean factories. Factories in China have a LOB of 86.9%, India 88.4%, and the Czech Republic 90.6%, all well over that of Korean factories.

Hyundai Motor's hours per vehicle (HPV), which measures production time for a single vehicle, is also markedly higher than its foreign counterparts and competitors. Hyundai Motor's Korean factories have an HPV of 31.3 hours, while the factories in Alabama, US have an HPV of 14.6 hours, and Beijing, China 19.5 hours. It is significantly higher than Nissan (18.7 hours) and Ford (20.6 hours) as well.

Hyundai Motor looks into increasing production abroad

Hyundai Motor is looking into extraordinary countermeasures of increasing production abroad should the strike begin to affect production. If the company acts on this plan, jobs in Korea will decrease as a result.

Last year, the union entered a 13 day partial strike and refused seven days of overtime work, incurring a production delay of 82,000 units, equivalent to 1.7 trillion won (US$1.52 billion) of monetary losses. From March to May, the union refused 11 days of holiday overtime work, incurring a production delay of 83,030 units in 1H 2013. The union's full strike will again cause major delays in production.

Hyundai Motor is expected to see huge losses for not meeting its supply volume. Hyundai Motor manufactures 42.2% of its products domestically, which is higher than its competitors such as Ford (38.9%), Toyota (38.8%), and GM (26.4%).

"Our customers won't wait until Hyundai cars are out," said Hyundai Motor personnel. "Earlier this year, we increased production abroad in response to the union's refusal to work overtime on weekends. If the union goes on strike, we'll have to play that card again," he added. Some point out that union power will begin to weaken not too long from now. "The union obsessing over short-term benefits will soon pose a threat to the entire Hyundai Motor Corporation and the union. Everyone knows that the union's excessive demands will lead to a decline in overall competitiveness, which will then result in wage cuts and employment contraction," pointed out an industry personnel. BK


LOVE CALLS FROM OVERSEAS

# Strikes at Hyundai Motor Sparking a Fierce Competition for Plant Relocation


a Hyundai factory in Montgomery, Alabama

Auto-sector strikes led to continuous love calls from local governments in the US and China in an attempt to persuade Hyundai Motors to set up its plants overseas.

According to sources in the business community and auto industry, Georgia Governor Nathan Deal secretly met with Hyundai Motor Group Chairman Chung Mong-koo, after arriving in Korea on August 20. His secret meeting with Chairman Chung was arranged prior to his visits to China and Japan from August 22 to 30.

It was reported that the governor made a request for the construction of a third North American plant in Georgia, where Kia's first manufacturing plant in the U.S is located. And he was said to give details about stable labor-management relations at Hyundai and Kia's US car factories, as well as inadequate supplies of automobiles to the chairman. Georgia Governor's explanation for his plans to support Hyundai in building a third US plant in his state was also revealed. In particular, it was said that he showed his intentions to provide infrastructure for free, funding for job creation, and a tax exemption in the event of the construction of additional plant.

Alabama Governor's moves are also noticeable. Governor Robert Bentley, who is competing with Governor of Georgia for a third US plant, is reported to visit Korea in October and meet with Hyundai Chairman.

Hyundai Motors set up a Hyundai factory in Montgomery, Alabama in 2005 and a Kia plant in West Point, Georgia in 2009. Despite its car manufacturing plants in the US, Korea's largest domestic auto maker is grappling with production shortages in North America owing to repeated labor strikes in Korea each year. In 2010, Hyundai decided internally to build a second factory near the plant in Georgia, but changed its course toward the achievement of growth with quality due to global economic uncertainty.

However, there is renewed possibility of a third US plant. Hyundai is currently considering an option that in the case of a production shortfall caused by labor strikes, it will manufacture cars in overseas plants instead. Moreover, it is worth noting that factories in Montgomery and Georgia are operating at one hundred percent capacity at the moment.

Therefore, in some sense, the ongoing labor strikes are accelerating Hyundai' decision to build a third factory in the US.

Meanwhile, there is intense competition between local governments from western China such as Xi'an, Chengdu and Chongqing for a fourth car plant in China. A delegation of local government officials from western China is due to visit Korea at the end of August, while scheduling a visit to Hyundai Motors in a bid to make a deal for a fourth plant in China. If an agreement is reached, Hyundai's fourth factory will be built in the region.

In fact, Hyundai Motor is reviewing its plan for constructing a fourth factory in western China instead of Beijing where its first to third plants are already located. The potential for regional development is growing since the Xi Jinping government is stepping up its efforts to develop the western region.

A spokesperson for Hyundai Motor Group said, "We are pushing forward with a plan to build a fourth car plant in China in order to meet increasing demand in that country," adding, "There are serious problems with production in Korea because of the current walkouts. So, US state governments are vying with each other for the construction of our plant in their region. But no decision has been made yet on building additional factory in the US."

## JULY IMPORT CAR SALES

# A 39% Increase by Selling 14,953

On August 7, automobile industry officials said with a unanimous voice, "We could not meet the high demand owing to the limited supply," speaking of import car sales in July.

July is actually known to be a low season for buying cars, but import car sales in July this year increased sharply by 38.9% when compared to last year. In fact, many models were short on supply, which means that the number of actual sales is higher than the one reported.

On August 6, the Korea Automobile Importers & Distributors Association (KAIDA) announced that 14,953 new import cars were registered in July, which shows a 16.9% increase compared to June. The accumulated sales from January to July marked 89,440, which is also 22.5% higher than 73,007 in the same period last year.

Considering that Hyundai Motor's domestic sales in July decreased by 1.5%, it seems that the import car market moves in the opposite direction of the domestic one.

Amid the continuous success of the German top 4 imported car companies" (BMW, Mercedes-Benz, Audi, Volkswagen), the rise of diesel compacts and sedans in particular contributed to this growth.

Their new models also contributed to performance. Last month, Volkswagen achieved the highest sales in its history with the Golf Mk 7 and the sports utility vehicle (SUV) Tiguan. Consumers were attracted to Tiguan's affordable price and high fuel efficiency.

Industry experts expect import car sales to be stellar again this month. Many consumers are wait listed for some popular models. For the Mercedes-Benz E Class, about two thousand people have already paid their down payments. Audi's SUV type SQ5 model has also been announced to be available after a two to three month wait.

A representative of Audi Korea said, "When it comes to popular models, it's not about how many we can sell but how many we can import," and explained, "I believe consumers are attracted to the affordable price on these upgraded models."

Since its release last month, a total of 1,041 Volkswagen Golf Mk 7 models were sold in only 21 days. This model gained such extreme popularity that the wait was up to two or three months.

By brand, BMW also kept its position in July as Most Sold Vehicle by registering 3,023 cars, and Volkswagen ranked second with 2,696. Mercedes-Benz ranked third by registering 2,567 cars, Audi at fourth with 1,776 cars, and Toyota fifth with 737 cars. BK

## KOREAN TIRE MANUFACTURERS

# Opting Not to Mark Up Product Prices for Two Years in a Row

Local tire manufacturers have frozen the prices of their products for the second consecutive year as the price of natural rubber has fallen to improve their profitability.

According to industry sources, Hankook Tire, Kumho Tire and Nexen Tire have decided not to mark up the prices of their products used in general passenger cars this year. “The prices of some of the items sold in the T-Stations have slightly risen compared to last year,” said Hankook Tire, adding, “However, this is because the margin of the retail shops has been added to the factory prices to change the price marks and show the actual prices.”

The freezing of the prices is attributed mainly to the decline in the price of the raw material. The international price of natural rubber dropped from US$4,000 to US$5,000 to US$2,000 a ton between January and July this year. Natural rubber accounts for at least 25% of tire manufacturing costs.

The decreased production costs have been a boon to the manufacturers’ profitability. The operating profit ratio of Hankook Tire was 14.5% in the second quarter of this year. Those of Kumho and Nexen Tires rose to 10.2% and 10.3% during the same period, respectively.

Back in 2011, the tire price had been increased by 5% on average. At that time, the natural rubber price had amounted to US$5,500 per ton. “Almost the same raw material price is applied to the three manufacturers and this is why the prices of their products move in the same direction” said an industry insider, continuing, “Some people are saying that the companies are engaged in price fixing but it is wrong to say so.”

In the meantime, foreign tire manufacturers are expected to raise the prices of their products within this year as they are refining their product quality to narrow the gap with their Korean counterparts. BK

**Kumho Industrial Company**

M&A to Be Inevitable in Case of Failing to Normalize Management in 3 Years


Kumho Industrial Company creditors have allowed the Kumho Asiana Group to make a cross-shareholding structure and putting Kumho Asiana Group CEO Park Sam-gu in charge of normalization of management by registering him as director of Kumho Industrial Company. On August 20, Industrial Bank of Korea and Kumho Industrial Company creditors began reviewing cross-shareholding (recapitalization) for Asiana Airline’s Kumho Industrial Company corporate bills (CP) and the creditors’ leftover uncovered bonds, in order to improve Kumho Industrial Company’s financial structure and management normalization.

After registering CEO Park as the director, and if normalizing the management succeeds, then creditors will receive preemption preferences for shares. If not, then creditors’ shares and CEO Park’s shares will be sold. The creditors’ decision to allow cross-shareholding of the 79 billion won of Asiana Airline’s Kumho Industrial Company CP is to avoid delisting or becoming an administrative issue.

If the 50.8 billion won plain bonds owned by the creditors go through a debt-equity swap, and Kumho Industrial Company affiliate (with 30.08% share) Asiana Airlines’ CP 79 billion won are also swapped (13.0%), then Kumho Industrial Company and Asiana Airlines will be in a mutual investment.

The creditors’ share has decreased from 76.9% to 69.7% by June, and CEO Park’s share dropped from 14.2% to 10.6%. Asiana Airline’s share in Kumho Industrial Company, after the CP debt-equity swap, is 13.0%.

One of the Industrial Bank of Korea creditors said, “This has been inspected for two months from June to July,” and added, “Right now, CEO Park is doing actual management while not being in charge of the situation. We’re working on solving this issue as well.”

This creditor also mentioned, “If management normalization succeeds after three years of registering CEO Park has the director, then the creditors get preemption preferences to purchase shares. If it fails, then CEO Park will step off from management and M&A will take place.”

The main creditor bank Industrial Bank of Korea hosted a briefing session on August 14 about this normalization solution. Creditors will draw up a decision by August 22 and transmit resolution letter by September if agreed. Over 75% of creditors must agree in order to proceed. There are about 102 creditors, which does leave chances of rejection.

OIL REFINING INDUSTRY

# Speeding Up "Business Diversification"

**GS Caltex's recently-opened Fluid Catalytic Cracking Unit is the fourth facility of its type that the company runs. It opened for test runs on March 13th of this year.**

The oil refining industry is starting to emphasize business in non-refining sectors due to the weakening of refining margins and other industry downturns.

Since most of the refining sectors have suffered big losses in Q2, companies are turning to business diversification to relieve risk and create new growth power.

According to the oil refining industry on August 18, GS Caltex Corporation and S-OIL recorded operating losses in Q2 oil refining sectors. SK Innovation affiliate SK Energy also showed a 90% drop in its business profits compared to the same quarter from last year.

Due to the refining margin decrease, oil price reductions, and inventory losses, SK Energy's business profit dropped to 38.7 billion won (US$34.4 million), a drop of 345.3 billion won (US$307 million) from the previous quarter. GS Caltex and S-OIL also lost 130.3 billion won (US$116.2 million) and 59.4 billion won (US$53.0 million) each.

Hyundai Oil Bank also had a tough quarter after its sales dropped 14% compared to the same period from last year.

On the other hand, petrochemistry sectors accomplished stable business profits, recovering some of the losses from the refining sectors.

GS Caltex marked a business profit of 175.2 billion won (US$156.3 million) which is 23.7% higher than last year. This actually turned the end result into profit-making. SK Chemicals and SK Lubricants also showed an increase in their business profits of 226.3 billion won (US$201.4 million) and 29.2 billion won (US$26.0 million) each.

S-OIL also accomplished a 99.6 billion won (US$88.6 million) business profit through its petrochemical business with Para-xylene (PX), despite its losses in the refining sector.

For the 4 domestic oil refining companies, the average sales contribution is 70%-90% refining and about 20% petrochemistry.

Seeing from the recent industry performances, the trend of the 20% success covering for the 80% loss has been continuing for a while. Therefore, the industry is searching for growth power in petrochemistry and other new business sectors, rather than refining in order to stabilize the business structure.

The four refining companies are also working hard to increase production of benzene, toluene, and xylene (BTX) and PX used for making terephthalic acid (PTA) by 2015, which is by the time when China completes its mass production of high-purity PTA used for making synthetic fiber or polyethylene terephthalate (PET) bottles.

SK Innovation is continuing to strengthen its business abilities in the electron materials sector through secondary cell batteries for electronic vehicles, Flexible Copper Clad Laminate (FCCL) for circuit boards, Lithium-ion Battery Separators (LiBS), and Tri-acetyl Celluose (TAC.

GS Caltex is also advancing with non-refining business sectors such as functional plastic and pitch-based activated carbon fibers. BK

OVERSEAS CONSTRUCTION

# Undergoing Significant Changes

Korean builders are winning a rapidly-increasing number of construction projects in the Asia-Pacific and North American regions thanks to the fast economic growth of Asia-Pacific countries and the government's efforts in market diversification. The growth is expected to continue for a while as the countries are planning for many infrastructure development projects.

According to the International Contractors Association of Korea (ICAK), the total value of the orders local builders received this year added up to US$31.59 billion (398 orders), decreasing 4.6% year on year from US$33.12 billion (359 orders). Meanwhile, the value recorded in Asia showed an 89% growth from US$6.91 billion to US$13.08 billion (232 orders).

During the same period, the amount increased from US$1.76 billion to US$2.82 billion in Vietnam, from US$1.61 billion to US$2,8 billion in Singapore, from US$762.19 million to US$1.30 billion in India, from US$3.64 million to US$1.11 billion in Malaysia, and from US$99.55 million to US$897.55 million in Mongolia.

It soared from US$14.02 million (nine orders) to US$6.19 billion (25 orders) in the Pacific and North American region, too. The rapid increase is mainly because of the order for the construction of the Roy Hill iron ore processing plant in Australia obtained in May by Samsung C&T. The contract amount reaches US$5.77 million. In the meantime, the size recorded in the Middle East declined from US$20.69 billion (60 orders) to US$11.07 billion (55 orders) during the period.

Experts are saying that the government and industry's market diversification efforts are bearing fruit. "As concentration on the Middle East plant engineering market led to cutthroat competition and price dumping, the government and industry began to realize the importance of business portfolios and market diversification," said ICAK manager Kwon Oh-hoon, adding, "As a result, local builders are successfully increasing their presence in Asia and in an increasing variety of sectors such as urban development."

The construction companies' growth in Asia has been accelerating since 2007. The ratio of the orders they won in Asian countries to the total has skyrocketed from 28.19% and 29.20% in the 2000s and the early 2010s to 41.39% this year. The percentage has fallen from 59.97% in the 2000s to 54.9% in the early 2010s and 35.03% in 2013.

"The Asia-Pacific countries are in the process of urbanization and the population is increasing fast, which presents Korean builders with huge business opportunities since the mid-2000s," Construction Economy Research Institute of Korea researcher Yu Wi-sung explained, continuing, "Their experience and expertise accumulated in the Middle East are appealing to the nations in the region." He went on, "At the same time, the total value has been on the rise rapidly, owing to the shift from contracted construction to EPC-based projects." BK

DISRUPTION OF PLANT TERRITORY

# Shipbuilders Go Onshore While Constructors Go Offshore

In the plant industry, disruption of territory is becoming the norm. Shipbuilding and construction companies that are experiencing stagnation in existing businesses are expanding their business areas for further opportunities.

Korean shipbuilding companies are actively looking for business opportunities on land and construction companies are headed out to sea. Within the plant industry, competition for territory is intensifying.

According to industry reports released on August 7, shipbuilding companies that have traditionally focused on offshore plants are starting to strengthen their businesses by winning orders for onshore plants. This month, Hyundai Heavy Industries (HHI) has won a US$3.3 billion order from the Saudi Electricity Company (SEC) to build the Shuqaiq Steam Power Plant in Saudi Arabia as the sole EPC contractor. This is the largest single order since the HHI entered the plant business. HHI has seen steady increase in onshore plant orders. Total order amount more than doubled from US$2 billion in 2010 to US$4.1 billion last year. This year, HHI aims for US$6 billion and has already reached US$3.4 billion.

"HHI has internal engineering resources, which allows for flexible response to the client's complex demands and design changes. This led to HHI's recent performance in the onshore plant business," said HHI personnel.

Daewoo Shipbuilding & Marine Engineering (DSME) has also won an US$800 million deal to build modules for an onshore crude oil production facility in UAE. This deal is part of a project to create four artificial islands and build oil production facilities on them. Under the deal, DSME will be responsible for the purchase, design, and construction of modules for the 22 production facilities such as the oil production system and gas-to-liquid plants.

"We will continue to develop our interests in the onshore construction business. We are especially interested in building crude oil and natural gas production facilities near the sea," said DSME personnel.

Meanwhile, construction companies that traditionally performed well in onshore construction are moving out to sea. Some have made specific action plans such as selecting it as one of the future engines for growth and making relevant organization changes. Last April, Hyundai E&C won an offshore construction deal in the UAE, amounting to 2 trillion Korean won. This marked Hyundai E&C's official expansion into the offshore plant business.

"With increased competition and challenges by the late entrants in the onshore construction market, it is difficult to secure the appropriate level of profitability required. We are starting to turn our eyes to offshore plants," said Hyundai E&C personnel. "In the case of fixed offshore plants, relevant modules are prepared on land and later constructed offshore. Construction companies with relevant civil engineering experience have a head start," he added.

GS E&C selected offshore construction as one of the 2020 Future Engine for Growth businesses. Last July, GS E&C integrated the sales and business departments to maximize synergy. Furthermore, relevant departments such as the Plant Business Department, Technology Department, and Integrated Design Department are cooperating to execute government tasks and internal simulation projects in preparation for a new market entry.

"Through strengthening the relevant organizations, we plan to strengthen our design and construction capabilities on offshore plants such as Floating Production Storage and Offloading (FPSO) and Floating Liquefied Natural Gas (FLNG)," said GS E&C personnel. "We are actively seeking to invest in a strategic alliance or M&A with offshore construction companies to compensate for our initial lack of relevant experience," he added.

Samsung Engineering recently appointed Jungheum Park, an offshore plant expert, as the head of the company, and headed towards strengthening the business by establishing a joint offshore engineering company with UK-based AMEC.

SHIPBUILDING INDUSTRY

# Industry Leaders Increasing Their Dominance in Global Shipbuilding Market


Korean shipyards are among the best in the world.

The winner-take-all effect is predicted to get stronger as the global shipbuilding market is on a recovery track with restructuring coming close to completion.

According to Woori Investment & Securities and other industry sources, the placement of orders for the construction of offshore plants and merchant vessels has increased by 48.1% year-on-year in the first half of 2013 on a deadweight ton (DWT) basis, signaling a rebound in the sector. Under the circumstances, Korean shipbuilders have won an increasing number of orders through low priced bidding.

In the second half of this year, they are likely to veer towards more profitable projects with increased bargaining power. This is because the number of companies capable of building technology-intensive vessels and floating structures such as offshore plants, LNG carriers, and eco-ships is very limited, even though the global shipbuilding capacity has already reached saturation.

In the first half of 2013, only 18 companies around the world won shipbuilding orders for vessels of at least 35,000 CGT, or compensated gross tonnage, and just nine of them obtained those for ships of 52,000 or more CGT. Hyundai Heavy Industries, Samsung Heavy Industries, and Daewoo Shipbuilding and Marine Engineering took the lion's share in those segments. In addition, the ratio of the combined order backlog of the top 15 shipbuilders to the total increased from 37% to 44% between July 2010 and June 2013.

"The industry is reorganizing itself, led by leading shipbuilders with technological competitiveness," said Yoo Jae-hoon, researcher at Woori Investment & Securities. He continued, "Their profitability will improve from the latter half of this year as they can now focus on more lucrative orders."

In the first half, the low tonnage value was the main factor of order placement but, more recently, the number of such orders is on the rise owing mainly to concerns over the point of time of delivery and a rising tonnage value, which means the bargaining power of shipbuilders is likely to be further enhanced down the road.

"Once Chinese shipbuilders are driven out of the market through the restructuring process, their rivals in Korea such as Hyundai Mipo Shipbuilding, SPP Shipbuilding,q and Sungdong Shipbuilding will be able to benefit from it," said an industry insider.

WATCH & CLOCK INDUSTRY

# 90% of Twenty Trillion Won Domestic Watch Market is Imported

Despite the recession, foreign-made premium watch and clock brands continue to thrive. While the sales of other foreign-made premium brand products, such as bags and clothes, remain stationary, the sale of watches and clocks grows over 20% annually.

Foreign watch and clock companies are cheering while domestic companies are frowning at flagging local sales.

According to sales records from 2011, Switzerland takes 59% of the world's watch and clock market. In reality, the quantity of watches produced in Switzerland is at a mere 3%. This signifies that most premium watches are produced in Switzerland.

In 2006, Korea signed a Free Trade Agreement (FTA) with the European Free Trade Association (EFTA) and removed tariffs on about 8,000 items, including watch movement (operating devices). Switzerland is also a member of the EFTA along with Norway, Iceland, and other countries.

Korea is the 11th nation in the world to import watches produced in Switzerland, but 5th in growth rate. Foreign premium watch companies are aggressively targeting the Korean market by investing the savings from the recent tariff lift into advertisements and promotional events.

On the other hand, domestic watch companies are encountering more difficulties. With the lack of technology and early tariff lift, they have fallen behind in the competition.

One CEO of a domestic watch production company said, "Compared to 10 years ago, 80% to 90% of the watchmakers and parts producers have now disappeared," and appealed, "It has become difficult to endure against the aggressiveness of foreign companies."

According to Korea Watch & Clock Industry Cooperative (KOWIC) on August 4, foreign-made watches take over 90% of the twenty trillion won watch & clock industry. Specifically, over 80% of the premium watch market is occupied by five foreign companies: Richemont Korea, Swatch Group Korea, Korea Rolex, M&B Inc., and Fossil Korea.

These brands have increased their sales prices by 4% to 10% annually, even after the announcement of the Korea-EU FTA in 2011. Really, the benefits from lifting the tariffs have disappeared.

Foreign brands have been criticized for not investing in the actual development of the watch and clock industry, even if they dominate the domestic watch market. The domestic watch industry has faced a serious crisis since the products began to be imported in full swing. Most watch producers and parts makers have gone out of business.

Watch jewelry professor Cho Seonhyung of Dongseoul College pointed out, "The foreign premium watch import companies make tons of money, but fail to reinvest their earnings in the improvement of the watch and clock industry through manpower cultivation or equipment investment." Also, these few dominant companies in the market cause increased consumer damage.

Executive Eirector of KOWIC, Kim Dae-boong, criticized the situation by saying, "These foreign watch companies dominate the domestic market and earn a tremendous income, but never have they contributed to industrial growth and development with some brands without any record of donation."

Actually, foreign watch companies are required to pay a certain percentage of their revenues in order to help their mother country's development of the watch and clock industry (to the Federation of the Swiss Watch Industry FH in case of Switzerland). In Japan, the Federation of Import Traders has built watchmaking schools to invest in nurturing specialized manpower.

Professor Cho explained, "As the watch and clock industry is not a declining one but of rather high value, the foreign companies' positive attitudes toward investments, along with governmental support, are critically needed for the international competitiveness of domestic companies."

**Domestic Watch Business Market Size**


※ By selling price
Data: Korea Watch & Clock Industry Cooperative (KOWIC)Office of Customs Administration

FAVORABLE SALARY COMPARISONS

# Korea's 63 Million Won vs. the US's 57 Million Won in Large Businesses?

It has been reported that the average annual salary of the top 250 domestic companies is about 6 million won higher than that of American companies.

On August 7, a business management evaluation group "CEO Score" (CEO Park Ju-geun) compared the salaries of the top 250 Korean companies and those of major American companies at the end of last year, and announced that the annual average salary of Korean employees is 63 million won, which is higher than the 57 million won (US$53,526.00) of American employees.

For this comparison, CEO Score chose the top 250 Korean companies in terms of annual turnover, whilst selecting the 250 American companies listed on the 500 Standard & Poor's (S&P) with large annual salary gaps between the CEO and average employees.

US businesses do not make employees' annual salaries public in their business reports, so CEO Score took the data from a report on prevailing average salaries by industry, which Bloomberg had obtained from the US Department of Labor to compare salary gaps between CEOs and average employees.

Therefore, the numbers in this report are based on the average salary by industry rather than per individual employee. In the calculation on average annual payments, Bloomberg applied the indices by industry, including allowances based on the average hourly payment by industry for production and non-supervisory workers.

According to the analysis, the Korean company with the highest average salary is Nomura Financial Investment at 140 million won. Companies with an average salary over 90 million won included SK Telecom at 98 million won, Korea Securities Finance Corporation at 96 million won, Hyundai Motor at 94 million won, Export-Import Bank of Korea at 93 million won, Kia Motors at 91 million won, SK Chemicals, LG International Corporation, and Korea Exchange Bank at 90+ million won.

The American company with the highest average salary was First Energy at 95 million won. Companies with an average salary over 90 million won included Northrop Grumman Corporation and IBM at 95+ million won; and United Technologies, Lockheed Martin, and Boeing at 93 million won. Famous investment bank Goldman Sachs had an average of 81 million won, and J.P. Morgan ranked 9th with 87 million won.

Defense-related, electrical power generation, and investment banking industries showed higher average salaries in the US, while securities and automobile industries did so in Korea.

CEO Score explained these salary differences would be bigger when considering the sizes of the targeting companies and the GDPs per person of the two countries.

The total turnover of the 250 selected American companies was 7.594 quadrillion won, which is 3.5 times more than the 2.152 trillion won of Korean companies. The total net profit of those American companies was 641 trillion won, which was also 7.5 times higher than the 85 trillion won of Korean companies.

According to the International Monetary Fund, Korea's GDP per person in 2012 was also US$23,679.00, which was less than half of the American US$49,601.00.

However, it is difficult to determine whether the Bloomberg's American salary data used by CEO Score is adequate for parallel comparisons with Korean salary data. The Korean data calculated the salaries of "all employees under executive-level persons," while the American data used the salaries of "production and non-supervisory workers."

CEO Score said, "It is impossible to say that the data matches 100%, since Korea and the US have different hiring and payment systems, but it would be possible to get a general idea through comparison." BK

## 2013 WORLD ROWING CHAMPIONSHIPS

# Turning Chungju into Mecca of Global Water Sports

"Soon, the attention of rowing fans around the world will be turning to Chungju, Korea. I am confident that Chungju will jump up to be the Mecca of the domestic water sports industry and a global rowing city through the most prestigious World Rowing Championships."

On August 12, North Chungcheong Province Governor Lee Si-jong, the chairman of the organizing committee for the 2013 World Rowing Championships, said, "2300 players from 80 countries will participate in the competition held from August 25 to September 1, which will be the biggest one so far," adding, "We already finished all the preparations for transportation, accommodation, and safety to host this tournament successfully."

On August 31, 2009, Chungju was chosen as the host of the 2013 World Rowing Championships at the 2009 Fédération Internationale des Sociétés d'Aviron (FISA) Ordinary Congress held in Poznan, Poland. This is the second time the competition has been held in Asia, after the 2005 World Rowing Championships in Gifu, Japan. Rowing, one of the many water sports, is called "a marathon on the water" since it uses the entire body and requires a high output of physical energy. It is one of the oldest sports in the world. In particular, the World Rowing Championships is so well-liked that 3 billion people watch the games on TV.

North Chungcheong Province hosted four rowing competitions: the 2012 9th Asian Indoor Rowing Championships, the Asian Continental Olympic Qualification Regatta, the 2012 National Adaptive Rowing Competition, and the 2nd National Chungju Tangeum Lake Cup. The province is confident that it has the experience to make the upcoming events a success. This year, it has been thoroughly preparing for the competition by holding two competitions, including the 29th National President Cup.

Governor Lee said, "Chungju Tangeumho International Rowing Stadium, where the Championships will be held, was highly praised by FISA as an extraordinary one with superb natural landscapes." In fact, the stadium is fully equipped with latest facilities, such as a grandstand with a seating capacity of 1100, a tower for the finals modeled after National Treasure No. 6 Chungju Toppyongri's seven-story pagoda, a Marina Center with doping centers, and a boathouse with storage capacity for 200 racing rowboats.

A relay road on the water is the cream of the crop in the stadium. Designed to make 1.4km of the total 2.4km relay road for broadcasting floating on the water, Tangeumho Stadium can clearly capture dynamic images of rowing races. It was selected as the rowing stadium for the 2014 Incheon Asian Games.

Governor Lee said, "We are doing various promotions such as schools for rowing experience and rowing competitions on the street in an attempt to attract attention in rowing, which is unpopular in Korea," adding, "We will make the Championships a successful "Spoculture," where water sports and Korean culture are mixed. BK

On August 31, 2009, Chungju was chosen as the host of the 2013 World Rowing Championships.

## COMPETITIVENESS OF SCIENCE AND TECHNOLOGY

# Korea Is 4.7 Years behind the US and 1.9 Years Ahead of China

Korean electronics, information, and communications technologies are close to being the best in the world. On the other hand, Korea's aviation and space sciences are behind China's.

According to the "2012 Evaluation of Technology Level" of 120 national strategic technologies hosted by the Ministry of Science, ICT, and Future Planning (MSIP) and the Korea Institute of Science and Technology Evaluation and Planning (KISTEP) on August 12, Korea's level of technology, which used to be 2.5 years ahead of China's, is now only 1.9 years ahead.

Korea had 29 technologies 3-7 years ahead of China, 68 that are 1-3 years ahead, and 9 that are less than a year ahead. However, China had 13 technologies which are more advanced than Korea's. These include space launch vehicle development technology at 7.2 years, space surveillance system technology at 6.1 years, aerospace vehicle development and control management technology at 4.5 years, and futuristic piloted aviation technology at 3.8 years.

Compared to the US, the world leader in technology, Korea is 4.7 years behind. This shows a 0.7 year gap reduction from the 5.4-year difference in 2010. Korea is also catching up with the European Union (EU) at only 3.3 years difference compared to the previous 4.5 years, and with Japan at only 3.1 years difference from 3.8.

The level of 120 Korean national strategic technologies was evaluated to be at 77.8% of the US level. This is 1.3% higher than the 76.5% received in the 2010 evaluation of 95 national core technologies.

If the US' technology level is 100%, then the order of the top five countries work out to be the US (100%), EU (94.5%), Japan (93.4%), Korea (77.8%), and China (67%).


Korea's strategic technology with the highest level was electronics, information and communications (82.2%). It is 2.9 years behind the US, which is the smallest of all level differences. However, aviation and space sciences are at 66.8%, which is lower than China and shows the largest difference of 10.4 years compared to US.

When categorizing the 120 national strategy technologies to five levels of best, leading, pursuing, delayed, and behind, 36 technologies are in the leading category and 83 are in the pursuing. Space surveillance system technology falls into the delayed category.

Korea does not have any technology in the best category. Meanwhile, the US has 97, Japan has 14, and the EU has 10 in the best category. China had its "oriental medicine effectiveness and mechanism close examination" technology categorized as best.

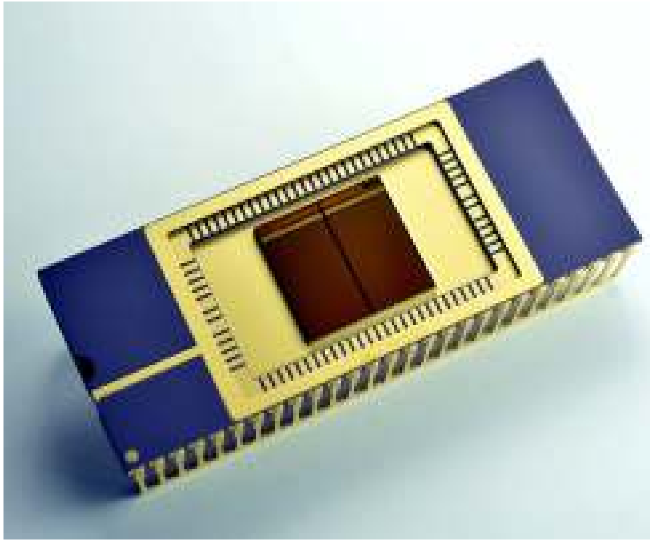
The number of domestic dissertations registered compared to the entire number of dissertations registered in the world's outstanding scholastic dissertation database related to the national strategic technologies (national strategic technology dissertation market share) for the past 10 years (2002-2012) was 3.5%, which ranked 5th, after the EU (23.5%), the US (19.2%), China (16.9%), and Japan (6.8%). As for the impact factor, showing dissertation quality, the US ranked first (1.47) followed by the EU (1.16), Japan (0.86), Korea (0.73), and China (0.35).

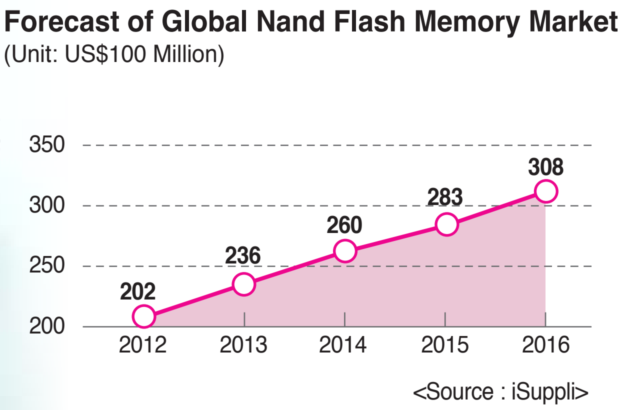
The average market share of national strategy technology patents for the past ten years turned out to be the US with 47.3%, the EU with 16.6%, Japan with 13.2%, Korea with 8.5%, and China with 1.4%. The patent impact factor ranking was the US at 1.29, Japan at 0.64, the EU at 0.55, Korea at 0.49, and China at 0.34.

The evaluation of technology level is held every 2 years in the following ten areas: electronics, information and communications; medical; biology; machinery; production and process; energy; resource and high technology; aviation and space; environment, earth and marine; nanotechnology and materials; construction and transportation; and disaster and catastrophe prevention and safety. BK

### 3D VERTICAL NAND FLASH

# Samsung Electronics to Mass-produce First in the Industry






Samsung Electronics has opened a new era for the world's first three-dimensional (3D) Vertical-NAND (V-NAND) flash memory chips. Samsung announced on August 6 that it has begun production of 3D V-NAND flash memory chips, which overcomes the limits of existing NAND flash technology. This new technology is considered to be the one that presents a paradigm to enable the manufacture of higher-density NAND flash memory storage products of over one terabyte, defying the limit of 20 nanometer (nm)-or less-class process technology.

The3D V-NAND products can store as much as 128Gb of data, making it the highest-capacity flash storage, which means 128 billion bytes of memory can be stored in a single fingernail-sized chip.

The world's No. 1 memory chip maker plans to expand the application range of 128 Gb memory chips, after embedding them in data centers and enterprise server systems rather than solid state drives (SSDs), which are used in place of hard disk drives (computer storage devices).

3D V-NAND flash memory is scheduled to be produced in Samsung's semiconductor plant in Hwaseong City by the end of this year. But from next year, it will be manufactured in Xi'an, China.

The most distinguished feature of the new V-NAND is improved performance and higher density through the manufacturing process of a vertical stacking of planar cell layers for a new 3D structure, different from the conventional 2D method based on planar structures. With the new vertical structure, Samsung can make higher density NAND flash memory chips.

In fact, the 128Gb NAND flash can provide more than twice the scaling of 20nm-class planar NAND flash. The new 3D V-NAND flash memory shows not only a 2-10 times increase in reliability, but also twice the write performance over conventional 10nm-class floating gate NAND flash memory. At the same time, the new technology consumes half the power of existing memory.

After nearly 10 years of research on 3D Vertical NAND, Samsung Electronics now retains more than 300 patent-pending 3D memory technologies worldwide. According to a report from research firm IHS iSuppli, the global NAND flash memory market is projected to reach US$30.8 billion in revenues by the end of 2016, increased from US$23.6 billion in 2013.

"Our company has an absolute advantage in the memory industry thanks to the new 3D V-NAND's production. We are planning to continually strengthen our competitive edge in the industry using our own differentiated technology," said a spokesperson for Samsung.

MARITIME R&D

# Aiming to Secure 15 Leading Technologies in Global Maritime

A school of bluefin tuna.

The Ministry of Oceans and Fisheries will strengthen R&D support with the goal to secure 15 leading technologies by 2017.

On August 21, the Ministry of Oceans and Fisheries called for a meeting of the Ocean and Fisheries Future Technology Committee to discuss and confirm its R&D directions.

The development strategy is composed of four major action plans, which are the establishment of a direction for creative R&D business, strengthening R&D capabilities in the ocean and fisheries market, gathering support from the industry while pushing for the application of accomplishments, and constructing a management system focusing on the consumer and 10 major detailed action plans.

The plan is to establish a Science and Technology Incubation Law for Oceans and Fisheries by 2014 and to start an R&D Policy Department in the Ministry, in order to build the basic foundation for middle and long-term R&D developments.

The Ministry is in the process of building a Commercialization Support Center and Technology Authorization Center for Oceans and Fisheries, which will support the commercialization of R&D activities. The Ministry will also increase the support budget for short-term R&D related to job creation from the current 7 billion won (US$6.2 million) to 30 billion won (US$26.7 million) by 2015.

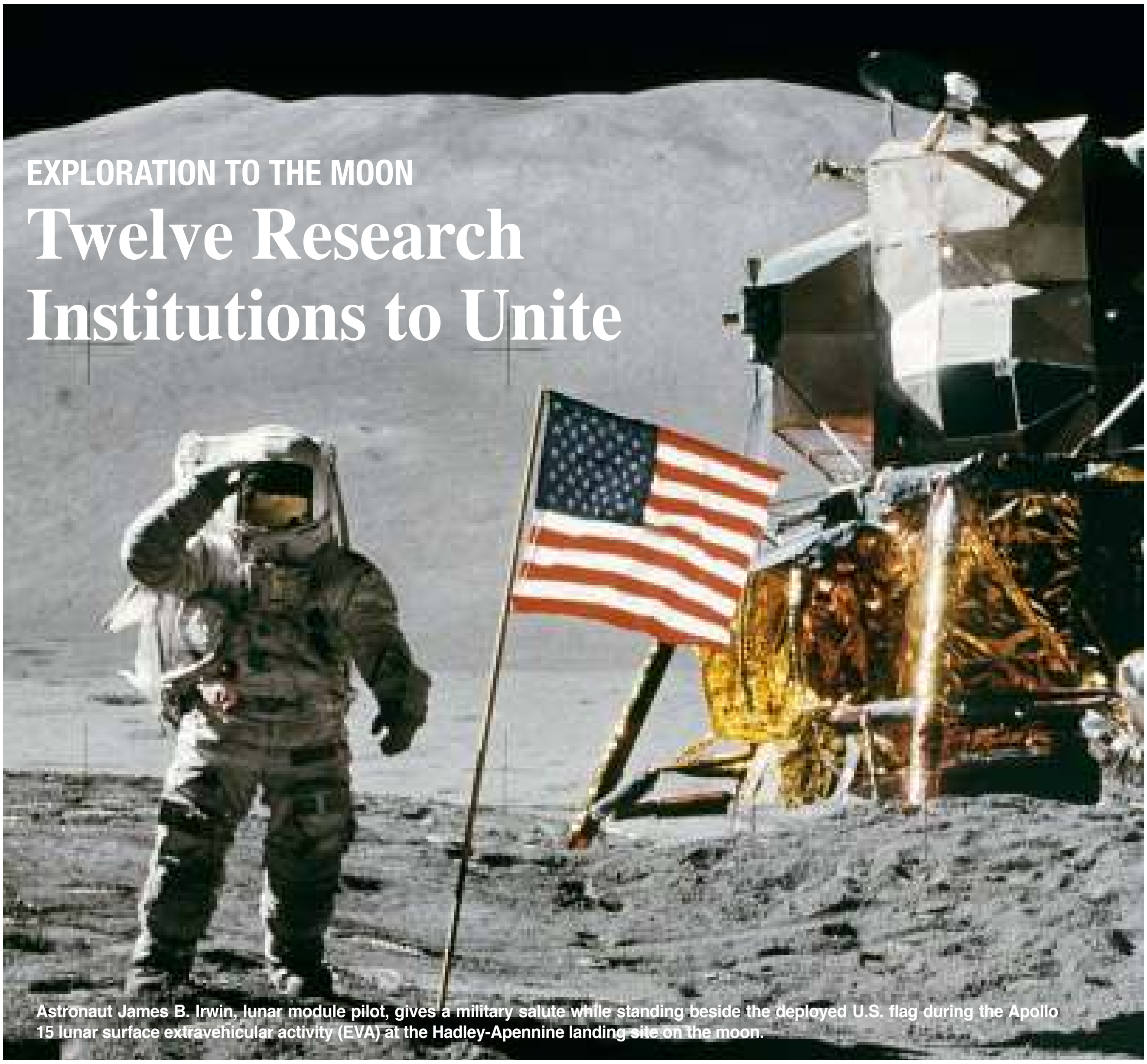
The Ministry aims to increase the number of world leading technologies from the current 7 to 15 by 2017, decrease the percentage of government-funded research centers, and increase the participation of universities and private research centers in oceans and fisheries R&D to 30% from the current 10%.

"We are in the process of moving fisheries R&D activities from the Ministry of Agriculture, Food, and Rural Affairs to the Ministry of Oceans and Fisheries," said an official of the Ministry. "Our budget for investment will go through examination by the Ministry of Science, ICT & Future Planning at the end of this year, at which time execution will begin," he explained.

The budget for R&D in oceans and fisheries has jumped an average of 19.1% per year since 2006 to reach the current 518.4 billion won (US$461 million), but this is still only 3.0% of the government's R&D budget.

EXPLORATION TO THE MOON

# Twelve Research Institutions to Unite



Astronaut James B. Irwin, lunar module pilot, gives a military salute while standing beside the deployed U.S. flag during the Apollo 15 lunar surface extravehicular activity (EVA) at the Hadley-Apennine landing site on the moon.

On August 21, the Ministry of Science, ICT and Future Planning announced that it formed the Moon Exploration Cooperation Committee in preparation for the moon exploration business with twelve government-funded research institutions.

The Committee will have its first meeting on the 23rd to discuss ways to create synergy in the development of science and technology for moon exploration.

The participating institutions are as follows: the Korea Research Council of Fundamental Science & Technology, Korea Research Council for Industrial Science & Technology, Korea Institute of Science and Technology, Korea Institute of Machinery & Materials, Korea Institute of Industrial Technology, Korea Atomic Energy Research Institute, Korea Electrotechnology Research Institute, Electronics and Telecommunications Research Institute, Korea Institute of Geoscience and Mineral Resources, Korea Astronomy & Space Science Institute, Korea Research Institute of Standards & Science, and Korea Aerospace Research Institute.

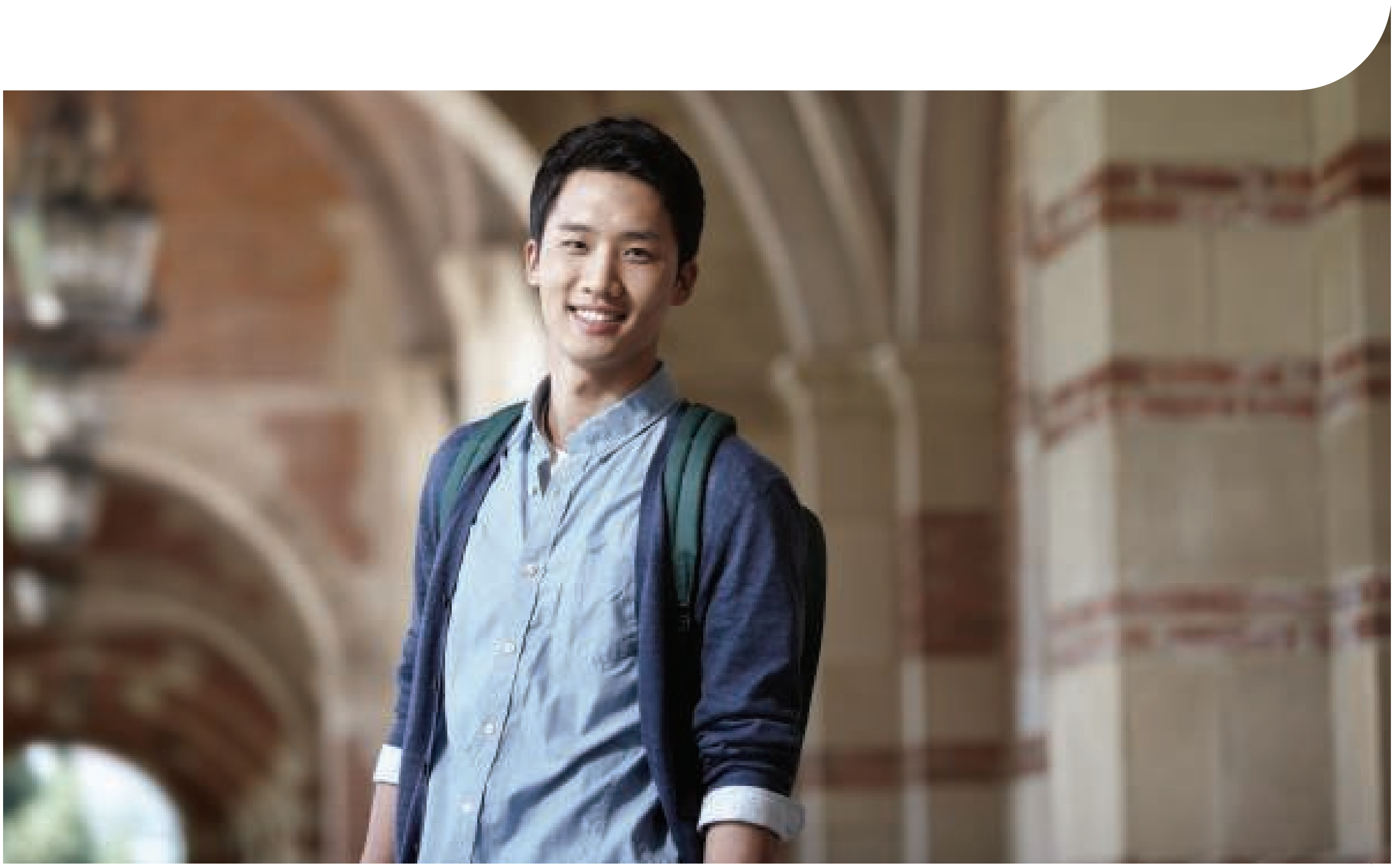
The Ministry of Science, ICT and Future Planning announced, "Moon exploration will bring together technologies from all industries in the nation and provide an opportunity to take a step forward in technology and space science." They added that they "expect such technologies to spread to related industries."

The Ministry of Science, ICT and Future Planning is currently conducting a preliminary feasibility study for the moon exploration business and will establish an action plan by the end of this year.

젊은청년에게
두산이 하고 싶은
열한번째이야기

말재주가 뛰어나지도 않지만
그리 멋을 내지도 않지만
늘 함께 있고 싶은 사람이 있다면
그 사람은 아마 행복한 사람일 것입니다
즐겁고 행복한 사람은
같이 있는 사람들을
행복하게 만들어 주니까요
행복한 사람만큼
곁에 두고 싶은 사람은 없습니다

사람이 미래다 DOOSAN



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